

حمل الآن

مجاناً وحصرياً

المراجعة رقم (1)

اختبار شهر اكتوبر



Model Exam on Concept (1.1)

Total mark

15

1 (A) Choose from column (B) what suits it in column (A) :

(5 marks)

(A)	(B)
1. Cell wall	a. stores nutrients, water and waste materials inside the plant cell.
2. Chloroplasts	b. surrounds the plant cell to give it a definite shape.
3. Sap vacuole	c. gives the animal cell its definite shape.
4. Chlorophyll	d. are organelles that contain tiny green granules.
	e. absorbs the energy of sunlight to make photosynthesis process.

1.

2.

3.

4.

(B) Give a reason for the following :

Vacuoles in cells act as storehouse in cities.

.....

2 (A) Put (✓) or (X) :

(5 marks)

- Cell biologists are scientists who study rocks. ()
- The cells of monkey are surrounded by cell membrane from outside. ()
- We can see the examined sample in bigger size when using the high power objective lens. ()
- All cells of human body have a nucleus. ()

(B) What happens if ... ?

Sugar doesn't reach mitochondria inside a cell.

.....

3 (A) Complete the following sentences using the words below :

(5 marks)

(the cell – methylene blue – tissues – number)

- To see the nucleus of a cell under microscope, we can stain the cell with dye.
- Muscle organ is composed of a group of that do the same function.
- Robert Hooke named each of tiny particles that he saw under his microscope with
- Your body grows up due to the increase in of your body cells.

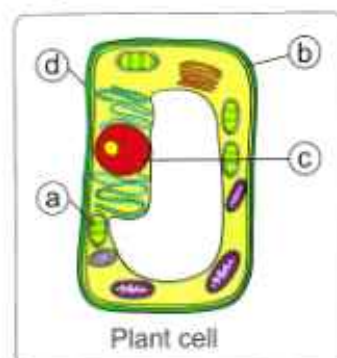
(B) Look at the opposite figure, then label it :

(a)

(b)

(c)

(d)



Model Exam on Concept (1.1) & (1.2)

Total mark

15

1 (A) Choose from column (B) what suits it in column (A) :

(5 marks)

(A)	(B)
1. A group of similar cells form	a. organs.
2. A group of different tissues form	b. cells.
3. A group of different organs form	c. whole body.
4. A group of different systems form	d. tissues.
	e. systems.

1.

2.

3.

4.

(B) Give a reason for the following :

You cannot see the body of bacteria with your naked eye.

.....

2 (A) Write the scientific term of each of the following :

(5 marks)

1. A device that is used to see the structure of living organisms cells. (.....)
2. A type of muscles which form the heart that contract and relax all time without stopping. (.....)
3. They are cell organelles that provide the cell with the needed energy. (.....)
4. A liquid in your mouth contains enzymes that help in digestion process. (.....)

(B) What happens if ...?

The blood that carries waste materials passes through nephrons of the two kidneys.

.....

.....

3 (A) Put (✓) or (x) :

(5 marks)

1. Proteins can pass through nephrons during filtration of blood in the kidneys. ()
2. Bacteria and horses are considered as multicellular organisms. ()
3. Nutrients reach the nerve cells which are found in your hand with the help of circulatory system. ()
4. There are many small vacuoles in the cells of a bird. ()

October Tests

Total mark

15

Model 1

1 (A) Put (✓) or (X) :

(5 marks)

1. Cellular respiration takes place inside cells by the help of golgi apparatus. ()
2. All systems in your body work together in an integrated way. ()
3. Exoskeleton gives some insect their shapes. ()
4. Cell biologists are scientists who study rocks. ()

(B) Give a reason for the following :

Liver and muscles convert the stored glycogen into glucose sugar.

.....

2 (A) Choose the correct answer :

(5 marks)

1. When you touch a hot cup of tea, system sends a message to the muscles of your hand to contract.
a. respiratory b. digestive c. circulatory d. nervous
2. To see the structure of a cell under microscope we must color it by using
a. stain. b. water. c. sunlight. d. vinegar.
3. You can see the cells of all the following under microscope, except
a. onion. b. human skin. c. leaf. d. stone.
4. All the following organs belong to musculoskeletal system, except
a. tendons. b. cartilages. c. veins. d. bones.

(B) What happens to ... ?

The lungs when the diaphragm muscle contracts.

.....

3 (A) Write the scientific term of each of the following :

(5 marks)

1. They are muscles that move automatically and you cannot control their movement. (.....)
2. They are cell organelles that provide the cell with its needed energy. (.....)
3. A hormone that regulates the level of sugar in the human body. (.....)
4. The main building unit of the living organisms body that can do all vital processes. (.....)

(B) Cross out the odd word :

1. Human – Fish – Plant – Bacteria. (.....)
2. Eyepiece – Stage – Objective lens – Coverslip. (.....)

Model 2

Total mark

15**1 (A) Complete the following sentences :**

(5 marks)

- Muscles of eyelid that allow you blink many times in one minute are considered as muscles, while the muscles that help your eyeball to move in different directions are considered as muscles.
- The presence of pigment gives most plants their green color.
- The disease is one of the disorders of the endocrine system.
- Pancreas is one of the organs of endocrine system that produce hormone.

(B) Correct the underlined words :

- Mitochondria provide the cell with its needed food. (.....)
- Growth of living organisms bodies happens by increasing the size of the cells that make up their bodies. (.....)

2 (A) Choose from column (B) what suits it in column (A) :

(5 marks)

(A)	(B)
1. A group of similar cells form	a. an organ.
2. A group of different tissues form	b. a cell.
3. A group of different organs form	c. the whole body.
4. A group of different systems form	d. a tissue.
	e. a system.

1. 2. 3. 4.

(B) What happens if ... ?

Your body doesn't get rid of waste.

.....

3 (A) Put (✓) or (X) :

(5 marks)

- The cell membrane allows water to go inside and outside the cell. ()
- All cells of human body have a nucleus. ()
- Tissues are composed of different types of organs. ()
- Proteins can pass through nephrons during filtration of blood in the two kidneys. ()

(B) Give a reason for the following :

Plant cell has a definite shape.

.....

1 (A) Choose the correct answer :

- Growth of a living organism is resulted from increasing the of cells in its body.
a. length b. size c. number d. mass
- Among the organs which contain both voluntary and involuntary muscles is the
a. heart. b. arm. c. eye. d. leg.
- The gelatinous liquid which is found inside the cell is known as
a. nucleus. b. cytoplasm. c. cell membrane. d. mitochondria.
- Absorption of nutrients inside the body occurs in the
a. large intestine. b. small intestine. c. heart. d. stomach.

(B) Give a reason for the following :

Plant cells can make photosynthesis process.

.....

2 (A) Complete the following sentences :

- The is the building unit of living organisms body.
- Digestive system provides the nerve cells with which are needed to perform their function.
- When you eat a piece of meat, proteins are broken down and form a waste material known as
- To see the nucleus of a cell under microscope, we can stain the cell with dye.

(B) What happens if ...?

Saliva is not secreted during chewing the food inside your mouth.

.....

3 (A) Write the scientific term of each of the following :

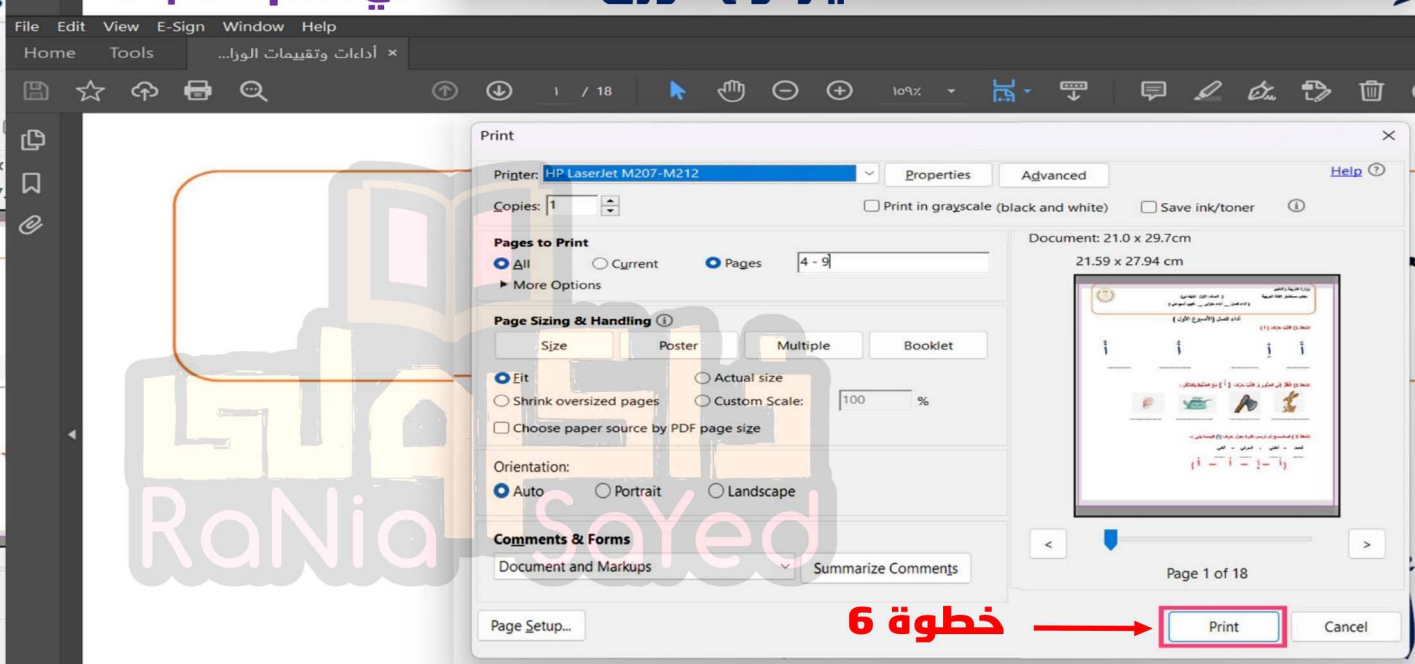
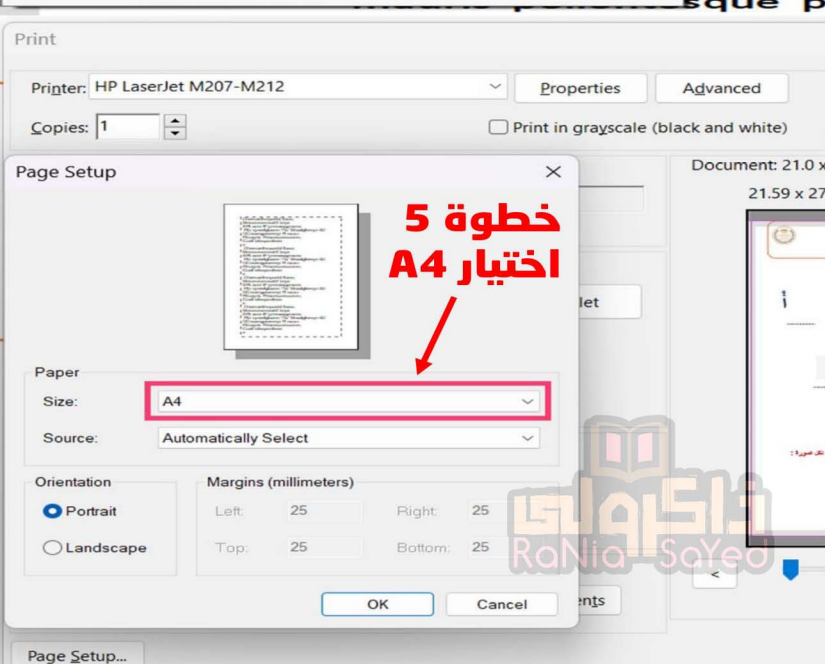
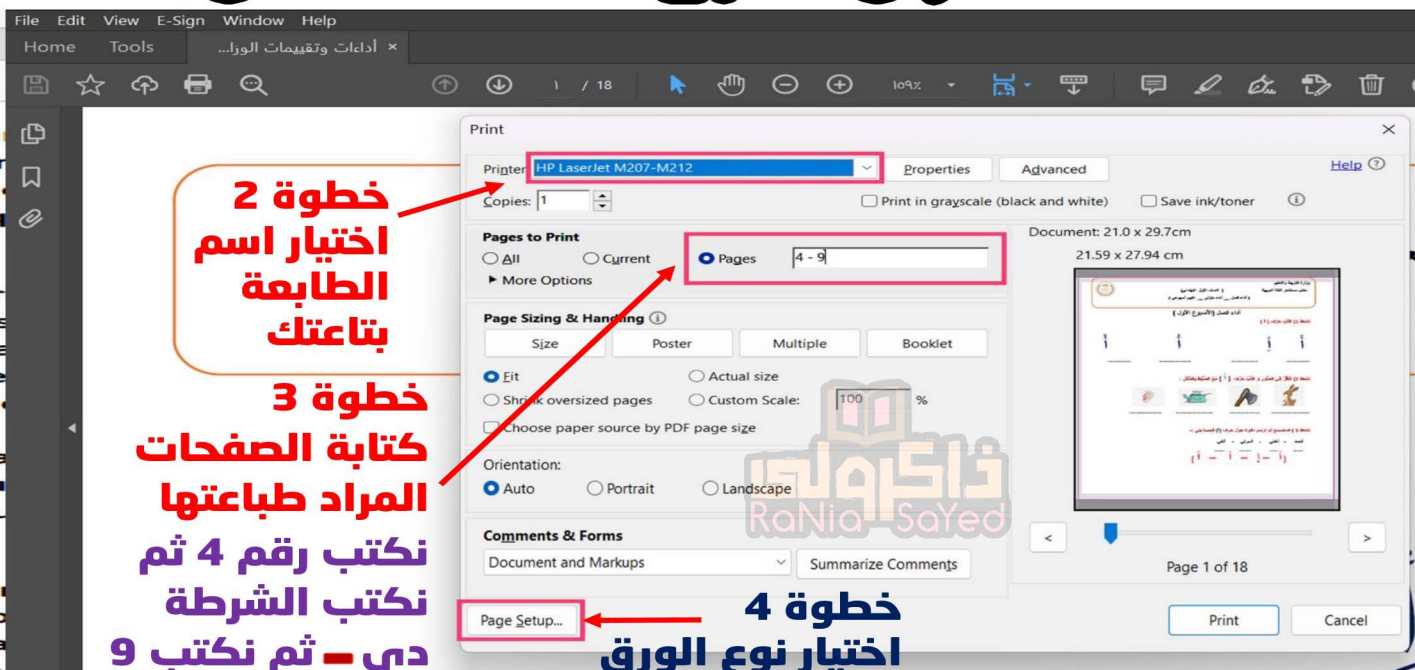
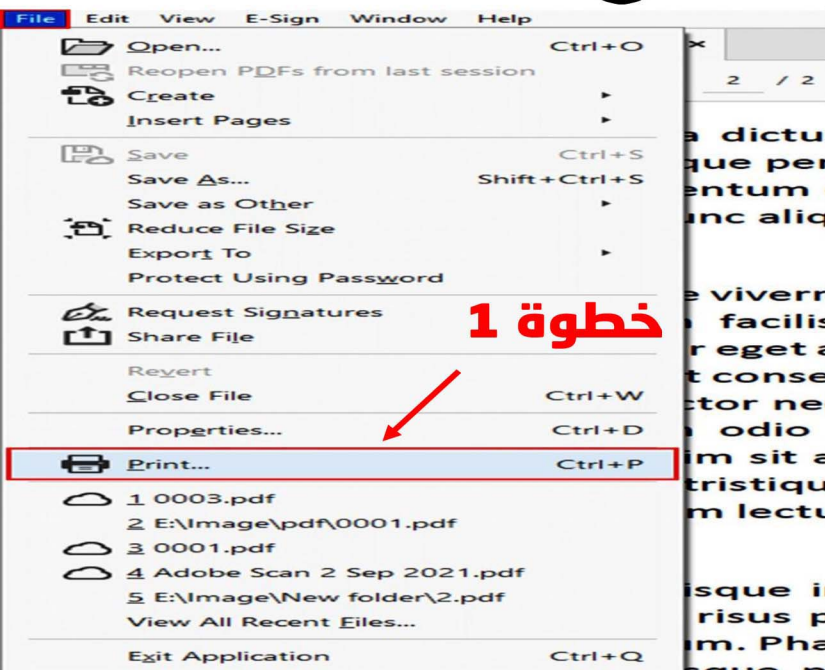
- They are muscles that you can control their movement. (.....)
- They are cells in the form of long fibers to allow movement. (.....)
- It is the green pigment, that absorbs the energy of sunlight to make photosynthesis process in plants. (.....)
- It is often located at the center of the cell. (.....)

(B) Cross out the odd word :

Sap vacuole – Chloroplasts – Small vacuoles – Cell wall. (.....)

كيفية طباعة صفحات معينة من ملف معين

مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



حمل الآن

مجاناً وحصرياً

المراجعة رقم (2)

اختبار شهر اكتوبر



Concept

1.1

Q1. Choose the correct answer:

- 1 Living organisms grow and reproduce by increasing the of cells in their bodies. (Gharbia 2024)
 a. length b. size c. number d. mass
- 2 is/are the control center of the cell, responsible for cell division. (Suez 2024)
 a. Mitochondria b. The nucleus
 c. Golgi apparatus d. The chloroplast
- 3 The bodies of are composed of one cell only. (Dakahlia 2024)
 a. humans b. bacteria c. big trees d. elephants
- 4 All the following structures are found in onion cells only and not found in fish cells, except (Aswan 2024)
 a. the cell wall b. one sap vacuole
 c. chloroplasts d. mitochondria
- 5 The organelles which provide the cell with its needed energy are called (Alex. 2024)
 a. endoplasmic reticulum b. Golgi apparatus
 c. mitochondria d. cell membrane
- 6 All the following can be stored inside the sap vacuole of a plant cell, except (Cairo 2024)
 a. energy b. nutrients
 c. waste materials d. water
- 7 All the following animals have bones in their bodies, except (Dakahlia 2024)
 a. cats b. dogs c. birds d. insects
- 8 The plant cell is distinguished from the animal cell by the presence of chloroplasts and a (Cairo 2024)
 a. nucleus b. cell wall c. cytoplasm d. mitochondria

- 9 We can see the cells of without using a microscope. (Alex. 2024)
 a. humans' skin b. plants c. bacteria d.
- 10 supply the cell with the needed energy. (Qalyubia 2024)
 a. The cell wall b. Mitochondria
 c. The cytoplasm d. Golgi apparatus
- 11 The animal cell cannot make photosynthesis process, because it doesn't have (Cairo 2024)
 a. a nucleus b. chloroplasts c. mitochondria d. a sap vacuole
- 12 You can see the cells of all the following under a microscope, except (Giza 2024)
 a. onions b. humans' skin c. leaves d. stones
- 13 Stomach is composed of a group of different (Alex. 2024)
 a. systems b. organs c. tissues d. bacteria
- 14 Most plants appear in color due to the presence of chlorophyll pigment in their cells. (Giza 2024)
 a. yellow b. blue c. green d. red
- 15 All the following parts are from the main parts of the animal cell, except the (Cairo 2024)
 a. cell membrane b. cytoplasm c. cell wall d. nucleus

Q2. Write the scientific term of each of the following:

- 1 It is a group of organs that work together to perform a specific function. (Port Said 2024) (.....)
- 2 It is the main building unit of living organisms bodies that can do all vital processes. (Giza 2024) (.....)
- 3 They are cell organelles that provide the cell with the needed energy. (Sohag 2024) (.....)
- 4 They are different tiny structures inside the cell and each type of them has a special function. (Dakahlia 2024) (.....)
- 5 It is a green pigment that absorbs the energy of sunlight to make the photosynthesis process in plants. (Dakahlia 2024) (.....)

- 6 It is a device that is used to see the structure of living organisms' cells. (Cairo 2024) (.....)
- 7 It is often located at the center of the cell. (Alex. 2024) (.....)

Q3. Complete the following sentences:

- 1 The is the component of the cell that allows water to enter and exit the cell. (Alex. 2024)
- 2 The cellulose makes up the, which is found in cells only. (Cairo 2024)
- 3 The plant cell is surrounded by a (Alex. 2024)
- 4 Cells of dogs are surrounded by from outside. (Qena 2024)

Q4. Put (✓) or (X):

- 1 Bacteria and horses are considered multicellular organisms. (Dakahlia 2024) ()
- 2 Mitochondria provide the cell with the needed food. (Alex. 2024) ()
- 3 Cellular respiration takes place inside cells with the help of the Golgi apparatus. (Cairo 2024) ()
- 4 All living cells contain chloroplasts. (Port Said 2024) ()
- 5 Cell biologists are scientists who study rocks. (Giza 2024) ()
- 6 A tissue consists of a group of similar cells. (Port Said 2024) ()
- 7 The exoskeleton gives some insects their shapes. (Dakahlia 2024) ()
- 8 The animal cell is surrounded by a cell wall. (Alex. 2024) ()
- 9 Chloroplasts are found in the cells of banana plant leaves. (Luxor 2024) ()
- 10 The cell wall surrounds the cell membrane of the animal cell. (Kafr El-Sheikh 2024) ()
- 11 The nucleus is found in the center of most cells. (Cairo 2024) ()
- 12 Mitochondria convert sugar within the cell into the energy required for the cell to carry out its vital processes. (Alex. 2024) ()
- 13 Water and waste materials are stored in vacuoles. (Alex. 2024) ()

Q5. Give reasons for:

- 1 Plant cells can make the photosynthesis process. (Alex. 2024)
.....
- 2 Mitochondria act as electrical power stations in cities. (Giza 2024)
.....
- 3 The cell allows water to go outside it. (Giza 2024)
.....
- 4 The plant cell has a definite shape. (Luxor 2024)
.....

Q6. What happens if:

- 1 The cell wall is absent in the plant cell? (Alex. 2024)
.....
- 2 Scientists didn't invent the microscopes? (Dakahlia 2024)
.....
- 3 There is much water entering the cell? (Alex. 2024)
.....
- 4 There are no chloroplasts in the plant cell? (Gharbia 2024)
.....

Q7. Mention the function of:

- 1 Mitochondria in the cell (Cairo 2024)
.....
- 2 Cell membrane (Suez 2024)
.....
- 3 Cell nucleus (Alex. 2024)
.....
- 4 Chloroplasts in the plant cell (Cairo 2024)
.....

Concept

1.2

Q1. Choose the correct answer:

- 1 Glands secrete that control(s) the body temperature and the blood pressure. (Alex. 2024)
a. hormones b. water c. blood d. urea
- 2 The blood, which carries waste materials, enters each kidney through a large (Cairo 2024)
a. vein b. artery c. blood capillary d. ureter
- 3 Among the organs of the musculoskeletal system are (Minia 2024)
a. muscles and bones of the arm b. muscles of the arm and lungs
c. bones and heart d. lungs and heart
- 4 The organ which is responsible for secreting sweat is the (Behira 2024)
a. esophagus b. stomach c. skin d. kidney
- 5 All the following are responsible for the excretion process, except the (Giza 2024)
a. digestive system b. skin
c. respiratory system d. urinary system
- 6 Which of the following muscles is voluntary? (Alex. 2024)
a. Stomach muscles b. Heart muscles
c. Neck muscles d. Eyelid muscles
- 7 People who suffer from diabetes can use the insulin pump device that injects the body automatically with (Qalyoubia 2024)
a. sugar b. water
c. insulin d. carbohydrates
- 8 When you feel nervous, your heartbeats increase, this indicates the interaction between the systems. (Alex. 2024)
a. digestive and nervous b. digestive and circulatory
c. nervous and circulatory d. digestive and respiratory

- 9 All the following muscles are considered voluntary muscles, except the muscles of the (Alex. 2024)
a. leg b. heart c. neck d. upper arm
- 10 Digestion process starts in your (Giza 2024)
a. mouth b. esophagus c. stomach d. small intestine
- 11 Urea is formed from the breakdown of inside the body's cells. (Suez 2024)
a. carbohydrates b. fats c. proteins d. acids
- 12 When the muscle in front of the upper arm contracts and the muscle in the back of the upper arm relaxes, the forearm moves (Port Said 2024)
a. up towards your shoulder b. down towards your shoulder
c. up away from your shoulder d. down away from your shoulder
- 13 The system that helps the respiratory system transport oxygen gas from the lungs to all body organs is the system. (Dakahlia 2024)
a. digestive b. skeletal c. nervous d. circulatory
- 14 The system that provides your body with oxygen gas and gets rid of carbon dioxide gas is the system. (Sharkia 2024)
a. respiratory b. nervous c. endocrine d. circulatory
- 15 Your leg moves due to the contraction and relaxation of the connected to the bones of your leg. (Menoufia 2024)
a. hairs b. toes c. skin d. muscles
- 16 The is an organ that contains voluntary and involuntary muscles. (Alex. 2024)
a. heart b. leg c. arm d. eye
- 17 The urination process happens with the help of the system. (Alex. 2024)
a. digestive b. urinary c. respiratory d. skeletal
- 18 The system that transfers nutrients from the digestive system to the different muscles of the body is the system. (Cairo 2024)
a. circulatory b. nervous c. respiratory d. excretory

- 19 Your are from the muscles that you cannot control their movement. (Cairo 2024)
- | | |
|-----------------|-------------------|
| a. hand muscles | b. eyelid muscles |
| c. leg muscles | d. arm muscles |

Q2. Put (✓) or (X):

- 1 A tissue consists of a group of similar cells. (Port Said 2024) ()
- 2 The two kidneys remove waste materials from blood. (Menoufia 2024) ()
- 3 Neck muscles are from voluntary muscles. (Qalyubia 2024) ()
- 4 When you hear a clock alarm, your brain sends a signal to the muscles to move and wake up. (Giza 2024) ()
- 5 Digestion begins when the food enters the esophagus. (Dakahlia 2024) ()
- 6 The muscle that helps in moving the eyes is a voluntary muscle. (Alex. 2024) ()
- 7 Sweat is excreted by the lungs. (Qalyubia 2024) ()
- 8 The forearm moves up towards your shoulder when the muscle in front of the upper arm contracts. (Cairo 2024) ()
- 9 All systems in your body work together in an integrated way. (Cairo 2024) ()
- 10 A group of different tissues can form a system. (Assiut 2024) ()
- 11 The heart is made of a type of involuntary muscle known as skeletal muscles. (Cairo 2024) ()
- 12 When your body needs energy, the liver and muscles convert glycogen into glucose again. (Alex. 2024) ()
- 13 All skeletal muscles are considered involuntary muscles and work by contraction. (Alex. 2024) ()
- 14 The digestive system digests food without the help of the nervous system. (Menoufia 2024) ()
- 15 People whose kidneys are not working properly must use other devices to filter their blood from waste. (Cairo 2024) ()
- 16 A human cannot control the movement of blood in his body. (Suez 2024) ()
- 17 Nephrons help in the filtration of blood from urea. (Luxor 2024) ()

Q3. Write the scientific term of each of the following:

- 1 It is the system that contains the lungs and diaphragm. (Alex. 2024) (.....)
- 2 It is the process of breaking down the complex food into a simpler form. (Dakahlia 2024) (.....)
- 3 It is the organ which contracts and relaxes to help in the movement of the body. (Dakahlia 2024) (.....)
- 4 They are muscles that are attached to the bones of the skeletal system. (Cairo 2024) (.....)
- 5 It is a system that is responsible for removing the waste materials produced from cells. (Alex. 2024) (.....)
- 6 They are muscles that move automatically, and we cannot control their movement. (Giza 2024) (.....)
- 7 It is a liquid in your mouth that contains an enzyme which helps in the digestion process. (Aswan 2024) (.....)
- 8 It is the organ that filters the blood from waste and forms urine. (Alex. 2024) (.....)
- 9 It is a disease that results from the disorder of secreting insulin hormone by the pancreas. (Assiut 2024) (.....)

Q4. Give reasons for:

- 1 During dangerous situations, the brain sends signals to the heart to increase heartbeats. (Sohag 2024)
.....
- 2 The body needs to convert complex food into simpler substances. (Giza 2024)
.....
- 3 The two kidneys contain many nephrons. (Cairo 2024)
.....
- 4 Diabetics must give themselves regular shots of insulin. (Aswan 2024)
.....

5 The cardiac muscle is considered an involuntary muscle. (Sohag 2024)

.....

6 Muscle cells are in the form of long fibers. (Alex. 2024)

.....

7 The excretion process is important to your body. (Sohag 2024)

.....

8 The nerve cells in the nervous system need nutrients. (Qalyubia 2024)

.....

9 Blood cells and proteins cannot pass through the kidney's nephrons.

.....

Q5. What happens to:

1 Your leg if the muscles found in it are damaged? (Minia 2024)

.....

2 The human body if the heart muscle doesn't contract and relax for a long period of time? (Assiut 2024)

.....

3 The brain of a cyclist when he sees a dangerous situation? (Minia 2024)

.....

4 The back muscles and the front arm if the front muscle of the upper arm contracts? (Giza 2024)

.....

5 The lungs when the diaphragm muscle contracts? (Cairo 2024)

.....

6 Your body doesn't get rid of waste materials? (Alex. 2024)

.....

Concept

1.1

Q1. Choose the correct answer:

- 1 Living organisms grow and reproduce by increasing the of cells in their bodies. (Gharbia 2024)
 a. length b. size c. number d. mass
- 2 is/are the control center of the cell, responsible for cell division. (Suez 2024)
 a. Mitochondria b. The nucleus
 c. Golgi apparatus d. The chloroplast
- 3 The bodies of are composed of one cell only. (Dakahlia 2024)
 a. humans b. bacteria c. big trees d. elephants
- 4 All the following structures are found in onion cells only and not found in fish cells, except (Aswan 2024)
 a. the cell wall b. one sap vacuole
 c. chloroplasts d. mitochondria
- 5 The organelles which provide the cell with its needed energy are called (Alex. 2024)
 a. endoplasmic reticulum b. Golgi apparatus
 c. mitochondria d. cell membrane
- 6 All the following can be stored inside the sap vacuole of a plant cell, except (Cairo 2024)
 a. energy b. nutrients
 c. waste materials d. water
- 7 All the following animals have bones in their bodies, except (Dakahlia 2024)
 a. cats b. dogs c. birds d. insects
- 8 The plant cell is distinguished from the animal cell by the presence of chloroplasts and a (Cairo 2024)
 a. nucleus b. cell wall c. cytoplasm d. mitochondria

- 9 We can see the cells of without using a microscope. (Alex. 2024)
 a. humans' skin b. plants c. bacteria d. birds' eggs
- 10 supply the cell with the needed energy. (Qalyubia 2024)
 a. The cell wall b. Mitochondria
 c. The cytoplasm d. Golgi apparatus
- 11 The animal cell cannot make photosynthesis process, because it doesn't have (Cairo 2024)
 a. a nucleus b. chloroplasts c. mitochondria d. a sap vacuole
- 12 You can see the cells of all the following under a microscope, except (Giza 2024)
 a. onions b. humans' skin c. leaves d. stones
- 13 Stomach is composed of a group of different (Alex. 2024)
 a. systems b. organs c. tissues d. bacteria
- 14 Most plants appear in color due to the presence of chlorophyll pigment in their cells. (Giza 2024)
 a. yellow b. blue c. green d. red
- 15 All the following parts are from the main parts of the animal cell, except the (Cairo 2024)
 a. cell membrane b. cytoplasm c. cell wall d. nucleus

Q2. Write the scientific term of each of the following:

- 1 It is a group of organs that work together to perform a specific function. (Port Said 2024) (System)
- 2 It is the main building unit of living organisms bodies that can do all vital processes. (Giza 2024) (Cell)
- 3 They are cell organelles that provide the cell with the needed energy. (Sohag 2024) (Mitochondria)
- 4 They are different tiny structures inside the cell and each type of them has a special function. (Dakahlia 2024) (Organelles)
- 5 It is a green pigment that absorbs the energy of sunlight to make the photosynthesis process in plants. (Dakahlia 2024) (Chlorophyll)

- 6 It is a device that is used to see the structure of living organisms' cells. (Cairo 2024) (**Microscope**)
- 7 It is often located at the center of the cell. (Alex. 2024) (**Nucleus**)

Q3. Complete the following sentences:

- 1 The **cell membrane** is the component of the cell that allows water to enter and exit the cell. (Alex. 2024)
- 2 The cellulose makes up the **cell wall**, which is found in **plant** cells only. (Cairo 2024)
- 3 The plant cell is surrounded by a **cell wall**. (Alex. 2024)
- 4 Cells of dogs are surrounded by **cell membranes** from outside. (Qena 2024)

Q4. Put (✓) or (X):

- 1 Bacteria and horses are considered multicellular organisms. (Dakahlia 2024) (X)
- 2 Mitochondria provide the cell with the needed food. (Alex. 2024) (X)
- 3 Cellular respiration takes place inside cells with the help of the Golgi apparatus. (Cairo 2024) (X)
- 4 All living cells contain chloroplasts. (Port Said 2024) (X)
- 5 Cell biologists are scientists who study rocks. (Giza 2024) (X)
- 6 A tissue consists of a group of similar cells. (Port Said 2024) (✓)
- 7 The exoskeleton gives some insects their shapes. (Dakahlia 2024) (✓)
- 8 The animal cell is surrounded by a cell wall. (Alex. 2024) (X)
- 9 Chloroplasts are found in the cells of banana plant leaves. (Luxor 2024) (✓)
- 10 The cell wall surrounds the cell membrane of the animal cell. (Kafr El-Sheikh 2024) (X)
- 11 The nucleus is found in the center of most cells. (Cairo 2024) (✓)
- 12 Mitochondria convert sugar within the cell into the energy required for the cell to carry out its vital processes. (Alex. 2024) (✓)
- 13 Water and waste materials are stored in vacuoles. (Alex. 2024) (✓)

Q5. Give reasons for:

- 1 Plant cells can make the photosynthesis process. (Alex. 2024)
Due to the presence of chloroplasts in the plant cells.
- 2 Mitochondria act as electrical power stations in cities. (Giza 2024)
Because mitochondria provide the cell with its needed energy.
- 3 The cell allows water to go outside it. (Giza 2024)
To keep water balance on both sides of the cell membrane.
- 4 The plant cell has a definite shape. (Luxor 2024)
Because the plant cell is surrounded by a cell wall, which gives it its definite shape.

Q6. What happens if:

- 1 The cell wall is absent in the plant cell? (Alex. 2024)
The plant cell won't have a definite shape.
- 2 Scientists didn't invent the microscopes? (Dakahlia 2024)
They couldn't discover the components of the cell.
- 3 There is much water entering the cell? (Alex. 2024)
The cell will swell until it bursts.
- 4 There are no chloroplasts in the plant cell? (Gharbia 2024)
The plant can't make its own food, so it can't survive.

Q7. Mention the function of:

- 1 Mitochondria in the cell (Cairo 2024)
They provide the cell with the needed energy.
- 2 Cell membrane (Suez 2024)
It protects the cell and determines the materials that enter or leave the cell.
- 3 Cell nucleus (Alex. 2024)
It controls all vital processes in the cell (cell division and formation of protein).
- 4 Chloroplasts in the plant cell (Cairo 2024)
They make a plant's food by carrying out the photosynthesis process.

Concept

1.2

Q1. Choose the correct answer:

- 1 Glands secrete that control(s) the body temperature and the blood pressure. (Alex. 2024)
a. hormones b. water c. blood d. urea
- 2 The blood, which carries waste materials, enters each kidney through a large (Cairo 2024)
a. vein b. artery c. blood capillary d. ureter
- 3 Among the organs of the musculoskeletal system are (Minia 2024)
a. muscles and bones of the arm b. muscles of the arm and lungs
c. bones and heart d. lungs and heart
- 4 The organ which is responsible for secreting sweat is the (Behira 2024)
a. esophagus b. stomach c. skin d. kidney
- 5 All the following are responsible for the excretion process, except the (Giza 2024)
a. digestive system b. skin
c. respiratory system d. urinary system
- 6 Which of the following muscles is voluntary? (Alex. 2024)
a. Stomach muscles b. Heart muscles
c. Neck muscles d. Eyelid muscles
- 7 People who suffer from diabetes can use the insulin pump device that injects the body automatically with (Qalyoubia 2024)
a. sugar b. water
c. insulin d. carbohydrates
- 8 When you feel nervous, your heartbeats increase, this indicates the interaction between the systems. (Alex. 2024)
a. digestive and nervous b. digestive and circulatory
c. nervous and circulatory d. digestive and respiratory

- 9 All the following muscles are considered voluntary muscles, except the muscles of the (Alex. 2024)
a. leg b. heart c. neck d. upper arm
- 10 Digestion process starts in your (Giza 2024)
a. mouth b. esophagus c. stomach d. small intestine
- 11 Urea is formed from the breakdown of inside the body's cells. (Suez 2024)
a. carbohydrates b. fats c. proteins d. acids
- 12 When the muscle in front of the upper arm contracts and the muscle in the back of the upper arm relaxes, the forearm moves (Port Said 2024)
a. up towards your shoulder b. down towards your shoulder
c. up away from your shoulder d. down away from your shoulder
- 13 The system that helps the respiratory system transport oxygen gas from the lungs to all body organs is the system. (Dakahlia 2024)
a. digestive b. skeletal c. nervous d. circulatory
- 14 The system that provides your body with oxygen gas and gets rid of carbon dioxide gas is the system. (Sharkia 2024)
a. respiratory b. nervous c. endocrine d. circulatory
- 15 Your leg moves due to the contraction and relaxation of the connected to the bones of your leg. (Menoufia 2024)
a. hairs b. toes c. skin d. muscles
- 16 The is an organ that contains voluntary and involuntary muscles. (Alex. 2024)
a. heart b. leg c. arm d. eye
- 17 The urination process happens with the help of the system. (Alex. 2024)
a. digestive b. urinary c. respiratory d. skeletal
- 18 The system that transfers nutrients from the digestive system to the different muscles of the body is the system. (Cairo 2024)
a. circulatory b. nervous c. respiratory d. excretory

- 19** Your are from the muscles that you cannot control their movement.
- (Cairo 2024)
- a. hand muscles b. eyelid muscles
- c. leg muscles d. arm muscles

Q2. Put (✓) or (X):

- 1 A tissue consists of a group of similar cells. (Port Said 2024) (✓)
- 2 The two kidneys remove waste materials from blood. (Menoufia 2024) (✓)
- 3 Neck muscles are from voluntary muscles. (Qalyubia 2024) (✓)
- 4 When you hear a clock alarm, your brain sends a signal to the muscles to move and wake up. (Giza 2024) (✓)
- 5 Digestion begins when the food enters the esophagus. (Dakahlia 2024) (✗)
- 6 The muscle that helps in moving the eyes is a voluntary muscle. (Alex. 2024) (✓)
- 7 Sweat is excreted by the lungs. (Qalyubia 2024) (✗)
- 8 The forearm moves up towards your shoulder when the muscle in front of the upper arm contracts. (Cairo 2024) (✓)
- 9 All systems in your body work together in an integrated way. (Cairo 2024) (✓)
- 10 A group of different tissues can form a system. (Assiut 2024) (✗)
- 11 The heart is made of a type of involuntary muscle known as skeletal muscles. (Cairo 2024) (✗)
- 12 When your body needs energy, the liver and muscles convert glycogen into glucose again. (Alex. 2024) (✓)
- 13 All skeletal muscles are considered involuntary muscles and work by contraction. (Alex. 2024) (✗)
- 14 The digestive system digests food without the help of the nervous system. (Menoufia 2024) (✗)
- 15 People whose kidneys are not working properly must use other devices to filter their blood from waste. (Cairo 2024) (✓)
- 16 A human cannot control the movement of blood in his body. (Suez 2024) (✓)
- 17 Nephrons help in the filtration of blood from urea. (Luxor 2024) (✓)

Q3. Write the scientific term of each of the following:

- 1 It is the system that contains the lungs and diaphragm.
(Alex. 2024) (**Respiratory system**)
- 2 It is the process of breaking down the complex food into a simpler form.
(Dakahlia 2024) (**Digestion process**)
- 3 It is the organ which contracts and relaxes to help in the movement of the body.
(Dakahlia 2024) (**Muscle**)
- 4 They are muscles that are attached to the bones of the skeletal system.
(Cairo 2024) (**Skeletal muscles**)
- 5 It is a system that is responsible for removing the waste materials produced from cells.
(Alex. 2024) (**Excretory system**)
- 6 They are muscles that move automatically, and we cannot control their movement.
(Giza 2024) (**Involuntary muscles**)
- 7 It is a liquid in your mouth that contains an enzyme which helps in the digestion process.
(Aswan 2024) (**Saliva**)
- 8 It is the organ that filters the blood from waste and forms urine.
(Alex. 2024) (**Kidney**)
- 9 It is a disease that results from the disorder of secreting insulin hormone by the pancreas.
(Assiut 2024) (**Diabetes**)

Q4. Give reasons for:

- 1 During dangerous situations, the brain sends signals to the heart to increase heartbeats.
(Sohag 2024)
To pump more blood to the body muscles.
- 2 The body needs to convert complex food into simpler substances.
(Giza 2024)
Because the body cells use these simpler substances to get energy and grow.
- 3 The two kidneys contain many nephrons.
(Cairo 2024)
To filter the blood and remove harmful substances from the body.
- 4 Diabetics must give themselves regular shots of insulin. (Aswan 2024)
To regulate the sugar level in their blood.

- 5 The cardiac muscle is considered an involuntary muscle. (Sohag 2024)
Because the heart muscle moves automatically and you cannot control its movement.
- 6 Muscle cells are in the form of long fibers. (Alex. 2024)
To allow movement.
- 7 The excretion process is important to your body. (Sohag 2024)
Because the excretory system collects the waste materials produced by the cells and remove them from the body to keep the body healthy.
- 8 The nerve cells in the nervous system need nutrients. (Qalyubia 2024)
To do their functions.
- 9 Blood cells and proteins cannot pass through the kidney's nephrons.
Because blood cells and proteins are large in size.

Q5. What happens to:

- 1 Your leg if the muscles found in it are damaged? (Minia 2024)
Your leg cannot move.
- 2 The human body if the heart muscle doesn't contract and relax for a long period of time? (Assiut 2024)
The heart cannot pump the blood carrying oxygen to all body cells and the person will die.
- 3 The brain of a cyclist when he sees a dangerous situation? (Minia 2024)
The brain sends a signal to the muscles that contract and allow his body to face the danger.
- 4 The back muscles and the front arm if the front muscle of the upper arm contracts? (Giza 2024)
The back muscles of the upper arm relax and the front arm moves upward.
- 5 The lungs when the diaphragm muscle contracts? (Cairo 2024)
The lungs take in the air rich in oxygen gas.
- 6 Your body doesn't get rid of waste materials? (Alex. 2024)
Your body will get sick.

حمل الآن

مجاناً وحصرياً

المراجعة رقم (3)

اختبار شهر اكتوبر



1 A) Choose the correct answer:

- The growth of a living organism results from an increase in the of cells in its body.
a) length b) size c) number d) mass

B) Give a reason for each of the following:

- 1 The cell allows water to go outside it.

.....

- 2 Muscle cells are long fibers.

.....

- 3 Plant cells can perform the photosynthesis process.

.....

2 A) Put (✓) or (X):

- The digestive system supports the nervous system by providing nutrients. ()

B) Define:

- 1 Cell

.....

- 2 Tissue

.....

3 A) Write the scientific term:

- The system that sends signals to control and move muscles. (.....)

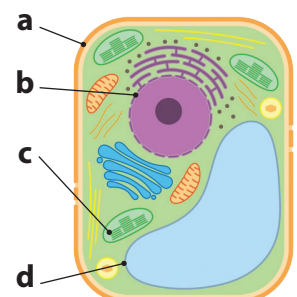
B) Look at the opposite figure, then answer:

- 1 The opposite figure represents a cell.

- 2 Label the different organelles of the opposite cell.

.....

.....



1 A) Complete the following sentence:

- The cellulose makes up the which is found in cells only.

B) What happens if/to ...?

- 1 A lot of water enters the cell

•

- 2 The diaphragm muscle during inhalation

•

- 3 The human body if the heart muscle doesn't contract and relax for a long period

•

2 A) Write the scientific term:

- They are organelles that provide the cell with the needed energy. (.....)

B) What is the importance of ...?

- 1 Endoplasmic reticulum

•

- 2 Endocrine system

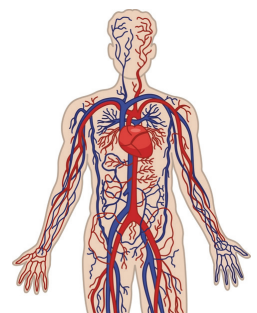
•

3 A) Cross out the odd word:

- Nucleus - Cell membrane - Chloroplast - Endoplasmic reticulum.

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents the system.
- 2 The main organs of this system are and



1 A) Choose the correct answer:

- Among the organs which contain both involuntary and voluntary muscles is the

a) heart b) arm c) eye d) leg

B) Answer the following questions:

- 1 The cell is considered a system. Explain this sentence.

•

- 2 Compare between voluntary and involuntary muscles.

•

•

- 3 Cross out the odd word, then write the relation between the other words:

(Kidney - Ureter - Heart - Urinary bladder)

•

2 A) Write the scientific term:

- Sac-like structures used for storing nutrients, water, and waste in plant cells.

(.....)

B) What happens if ...?

- 1 Microscope is not discovered

•

- 2 The kidneys stop working properly

•

3 A) Complete the following sentence:

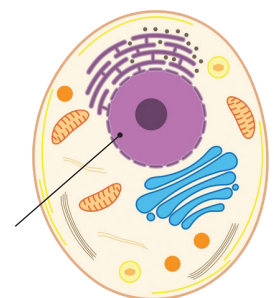
- The energy-storing substance formed from glucose in the liver and muscles is called

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents an cell.

- 2 Write the function of the structure shown in the figure.

•



1 A) Put (✓) or (X):

- Plant cells are similar to animal cells in the presence of a nucleus. ()

B) Give a reason for each of the following:

- 1 The plant cell has a definite shape, while the animal cell doesn't.

•

- 2 The nerve cells in the nervous system need nutrients.

•

- 3 The heart beats faster during danger.

•

2 A) Write the scientific term:

- Structures within the cell that have a special function. (.....)

B) What is meant by ...?

- 1 Cellular respiration process

•

- 2 Cytoplasm

•

3 A) Complete the following sentence:

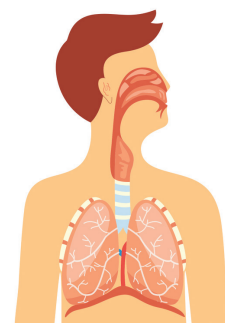
- The presence of pigments gives plants their green color.

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents the system.

- 2 The main organ in this system is the

which helps in



1 A) Choose the correct answer:

- Which of the following cells is the smallest in size?
a) Plant cells b) Bacterial cells c) Unfertilized bird egg d) Animal cells

B) First: Give a reason for each of the following:

- 1 The body needs to convert complex food into simpler substances.

•

- 2 Heart muscle is considered an involuntary muscle.

•

C) Second: What is the importance of golgi apparatus?

•

2 A) Complete the following sentence:

- absorbs water from undigested food before expelling it out of the body.

B) What happens ...?

- 1 If there is no vacuole in the plant cell

•

- 2 To the brain of a cyclist when he sees a dangerous situation

•

3 A) Put (✓) or (X):

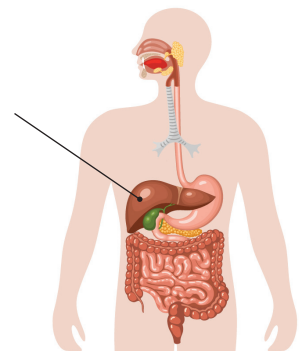
- Every plant cell has a cell wall and therefore does not need a cell membrane. ()

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents the

- 2 What is the importance of the organ labeled by the arrow?

•



1 A) Choose the correct answer:

- The growth of a living organism results from an increase in the of cells in its body.
a) length b) size c) number d) mass

B) Give a reason for each of the following:

- 1 The cell allows water to go outside it.
• To keep the balance on both sides of the cell membrane.
- 2 Muscle cells are long fibers.
• To allow movement and be able to store and use energy quickly.
- 3 Plant cells can perform the photosynthesis process.
• Because plant cells contain chloroplasts that have chlorophyll, which absorbs sunlight needed to make food during photosynthesis.

2 A) Put (✓) or (X):

- The digestive system supports the nervous system by providing nutrients. (✓)

B) Define:

- 1 Cell
• It is the building unit of living organisms.
- 2 Tissue
• It is a group of similar cells bound together.

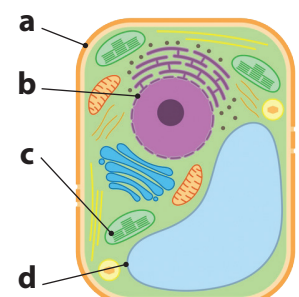
3 A) Write the scientific term:

- The system that sends signals to control and move muscles. (Nervous system)

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents a plant cell.
- 2 Label the different organelles of the opposite cell.

- | | |
|----------------|------------------|
| a- Cell wall | b- Nucleus |
| c- Chloroplast | d- Large vacuole |



1 A) Complete the following sentence:

- The cellulose makes up the **cell wall** which is found in **plants** cells only.

B) What happens if/to ...?

- 1 A lot of water enters the cell
 - The cell will swell until it bursts.
- 2 The diaphragm muscle during inhalation
 - It contracts and moves downward, allowing the lungs to expand and fill with air.
- 3 The human body if the heart muscle doesn't contract and relax for a long period
 - Blood will stop circulating, and the body's organs will not receive oxygen, which can lead to death.

2 A) Write the scientific term:

- They are organelles that provide the cell with the needed energy. (Mitochondria)

B) What is the importance of ...?

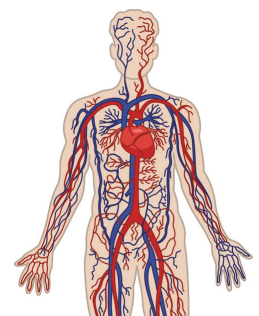
- 1 Endoplasmic reticulum
 - It helps in assembling and transporting proteins inside the cell.
- 2 Endocrine system
 - It controls the body responses and affects other body systems when it faces danger.

3 A) Cross out the odd word:

- Nucleus - Cell membrane - **Chloroplast** - Endoplasmic reticulum.

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents the **circulatory** system.
- 2 The main organs of this system are **the heart** and **blood vessels**.



1 A) Choose the correct answer:

- Among the organs which contain both involuntary and voluntary muscles is the

a) heart b) arm c) eye d) leg

B) Answer the following questions:

- The cell is considered a system. Explain this sentence.
 - The cell consists of many organelles working together to perform a specific function.
- Compare between voluntary and involuntary muscles.

Voluntary muscles	Involuntary muscles
They are muscles that we can control their movement.	They are muscles that we cannot control their movement.
Examples: Arm muscles - Neck muscles.	Example: Heart muscle.

- Cross out the odd word, then write the relation between the other words:
(Kidney - Ureter - Heart - Urinary bladder)
 - (Heart) (The other words are components of the urinary system).

2 A) Write the scientific term:

- Sac-like structures used for storing nutrients, water, and waste in plant cells.

B) What happens if ...?

(Large vacuole)

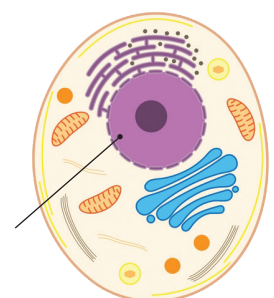
- Microscope is not discovered
 - Scientists couldn't observe cells.
- The kidneys stop working properly
 - Wastes and excess water will not be removed from the blood.

3 A) Complete the following sentence:

- The energy-storing substance formed from glucose in the liver and muscles is called **glycogen**.

B) Look at the opposite figure, then answer:

- The opposite figure represents an **animal** cell.
- Write the function of the structure shown in the figure.
 - It is responsible for cell division and the production of protein.



1 A) Put (✓) or (X):

- Plant cells are similar to animal cells in the presence of a nucleus.

(✓)

B) Give a reason for each of the following:

- The plant cell has a definite shape, while the animal cell doesn't.
 - Because the plant cell has a cell wall that gives it a definite shape, while the animal cell doesn't have a cell wall, so its shape is not definite.
- The nerve cells in the nervous system need nutrients.
 - Because they need energy to send messages and control body activities.
- The heart beats faster during danger.
 - To supply the body and muscles with more oxygen.

2 A) Write the scientific term:

- Structures within the cell that have a special function.

(Organelles)

B) What is meant by ...?

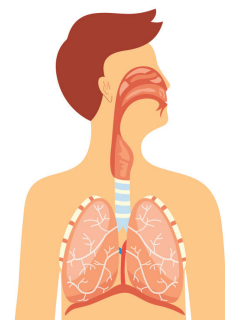
- Cellular respiration process
 - It is the process that takes place inside the mitochondria where oxygen is used to obtain the chemical energy stored in food to help the cells perform their function.
- Cytoplasm
 - It is a gelatinous liquid in which the cell organelles float.

3 A) Complete the following sentence:

- The presence of **chlorophyll** pigments gives plants their green color.

B) Look at the opposite figure, then answer:

- The opposite figure represents the **respiratory** system.
- The main organ in this system is the **lung** which helps in **providing the body with oxygen gas**.



1 A) Choose the correct answer:

- Which of the following cells is the smallest in size?
a) Plant cells b) Bacterial cells c) Unfertilized bird egg d) Animal cells

B) First: Give a reason for each of the following:

- 1 The body needs to convert complex food into simpler substances.
• To get energy that helps the body to grow.
- 2 Heart muscle is considered an involuntary muscle.
• Because it moves automatically and we can't control its movement.

C) Second: What is the importance of golgi apparatus?

- It helps in packing and transporting different materials inside the cell.

2 A) Complete the following sentence:

- Large intestine absorbs water from undigested food before expelling it out of the body.

B) What happens ...?

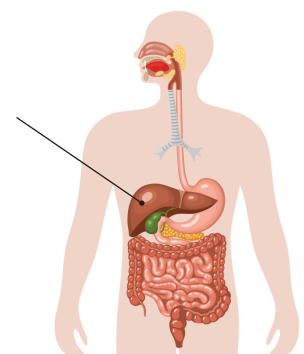
- 1 If there is no vacuole in the plant cell
• The plant can't store water and nutrients.
- 2 To the brain of a cyclist when he sees a dangerous situation
• It sends signals to the muscles to avoid the danger.

3 A) Put (✓) or (X):

- Every plant cell has a cell wall and therefore does not need a cell membrane. (X)

B) Look at the opposite figure, then answer:

- 1 The opposite figure represents the digestive system.
- 2 What is the importance of the organ labeled by the arrow?
• It stores glucose sugar and converts it into glycogen.



حمل الآن

مجاناً وحصرياً

المراجعة رقم (4)

اختبار شهر اكتوبر



1 Choose the correct answer:

- 1 The smallest tiny structures that build up all living organism's bodies are.....
 a systems. b cells. c organs. d bricks
- 2 We can see the cell of..... without using a microscope.
 a bacteria b plant c human d bird's egg
- 3 Growth of a living organism is resulted from increasing the of cells in its body.
 a length b size c number d mass
- 4 Microscopes help scientists to discover that is the building unit of living organisms bodies
 a brick b cell c the Sun d energy
- 5 The body of simple living organisms as bacteria consists of
 a one cell only. b different cells.
 c many cells. d ten cells only.
- 6 You can see the cells of all the following under microscope, except
 a onion. b human skin.
 c leaf. d stone
- 7 All the following parts are from the main parts of the animal cell, except.....
 a cell membrane. c cytoplasm.
 b cell wall. d nucleus.
- 8 The gelatinous liquid which is found inside the cell is known as
 a nucleus. b cytoplasm.
 c cell membrane. d organelles.
- 9 The structure of the plant cell which is made up of cellulose is the
 a cell membrane. b nucleus.
 c cell wall. d cytoplasm.
- 10 A plant cell has the ability to make the photosynthesis process due to the presence of inside it.
 a mitochondria b chloroplasts
 c nucleus d cytoplasm



Mr /Menna Hussein
Mrs/Christina Zaghloul

- 11 The organelles which provide the cell with its needed energy are called
- a endoplasmic reticulum. b mitochondria.
c golgi apparatus. d cell membrane.
- 12 The cellulose forms the..... of plant cell.
- a cell membrane b cell wall
c chloroplasts d sap vacuole
- 13 All the following structures are found in onion cells only and not found in fish cells, except
- a cell wall. b one sap vacuole.
c chloroplasts. d mitochondria.
- 14 All the following can be stored inside sap vacuole of plant cell, except
- a energy. b nutrients. c water. d waste materials.
- 15 All the following animals have bones in their bodies, except.....
- a cats. b dogs. c birds. d insects.
- 16 The animal cell cannot make photosynthesis process, because it doesn't have
- a nucleus. b chloroplasts.
c mitochondria. d sap vacuole.
- 17 Most plants appear in color due to the presence of chlorophyll pigment in their cells
- a yellow b blue c green d red
- 18 To see the structure of a cell under microscope we must color it by using
- a stains. b water. c sunlight. d vinegar.
- 19 When you feel nervous, your heartbeats increase, this indicates the interaction between systems
- a digestive and nervous b digestive and circulatory
c nervous and circulatory d digestive and respiratory

- 20 In a dangerous situation, your eyes send the information to the to perform the suitable action.
a brain **b** stomach **c** lungs **d** heart
- 21 Muscles of stomach and muscles of heart can be controlled by system
a digestive **b** circulatory
c nervous **d** respiratory
- 22 The system which transfers nutrients from the digestive system to the different muscles of the body is the system
a circulatory **b** nervous
c respiratory **d** excretory
- 23 The muscle is considered as.....
a a cell. **b** a tissue. **c** an organ. **d** a system
- 24 Among the organs of musculoskeletal system are
a muscles and bones of arm. **b** muscles of arm and lungs.
c bones and heart. **d** lungs and heart.
- 25 Your leg moves due to contraction and relaxation ofconnected to the bones of leg.
a hairs **b** toes **c** skin **d** muscles
- 26 Among the organs which contain both involuntary and voluntary muscles is the
a heart. **b** arm. **c** eye. **d** leg.
- 27 All the following are from types of blood vessels, except
a arteries. **b** heart. **c** veins. **d** blood capillaries.
- 28 Circulatory system can transport all of the following substances through all the body parts, except
a nutrients. **b** gases. **c** hormones. **d** bones
- 29 The systems of the human body get their needed energy from
a the Sun. **b** water. **c** food. **d** carbon dioxide.

Mr /Menna Hussein

Mrs/Christina Zaghloul

30 You can use your muscles to help the teeth chew the food.

- a eye b upper arm c jaw d hand

31 Digestion process starts in your

- a mouth. b esophagus.
c stomach. d small intestine.

32 Absorption of nutrients inside the body occurs in the.....

- a large intestine. b small intestine.
c heart. d stomach.

33 The large intestine absorbs from the undigested food.

- a nutrients b water c blood d urea

34 The part of large intestine which stores the feces until it leaves the body is the

- a rectum. b colon. c esophagus. d anus.

35 The organs which can store glucose and convert it into glycogen are

- a liver and pancreas. b muscles and stomach.
c esophagus and stomach. d liver and muscles.



2 Put (✓) or (✗) for each of the following:

- 1 All animal cells have a nucleus. ()
- 2 Growth of living organisms depends on increasing the number of cells ()
- 3 Chloroplasts are found in the cells of banana plant leaves. ()
- 4 Mitochondria convert sugar inside the cell into the energy needed to make the cell do its vital processes ()
- 5 Cellular respiration takes place inside cells with the help of the golgi apparatus ()
- 6 The cell wall surrounds the cell membrane of animal cells ()
- 7 There is one big vacuole in each cell of onion plant ()
- 8 The exoskeleton gives some insects their shapes. ()
- 9 Cell biologists are scientists who study rocks ()
- 10 When you hear a clock alarm, your brain sends a signal to the muscles to move and wake up. ()

Mr /Menna Hussein
Mrs/Christina Zaghloul

- 11 The digestive system depends on the circulatory system to deliver the nutrients to all body parts ()
- 12 The brain and the heart are from parts of the circulatory system. ()
- 13 A group of different tissues can form a system. ()
- 14 Muscle cells are in the form of long fibers to allow movement ()
- 15 Muscle cells cannot store and use energy quickly. ()
- 16 Musculoskeletal system consists of muscular system and digestive system. ()
- 17 The body can move by the help of the skeletal system only ()
- 18 The forearm moves up towards your shoulder when the muscle in front of the upper arm contracts ()
- 19 Heart muscle is considered as voluntary muscle. ()
- 20 Heart muscle contracts and relaxes all the time without stopping ()
- 21 All skeletal muscles are considered as involuntary muscles and work by contraction ()
- 22 Endocrine system secretes hormones that control the increasing of your breathing rate during danger ()
- 23 Digestion begins when the food enters esophagus. ()
- 24 Saliva is a liquid which is secreted by salivary glands inside your mouth ()
- 25 Absorption of digested food takes place in the small intestine. ()
- 26 Glycogen is converted into glucose and stored in liver and muscles. ()
- 27 When your body needs energy, liver and muscles convert glycogen into glucose again. ()

3 Write the scientific term of each of the following

- 1 The main building unit of living organisms bodies that can do all vital processes. ()
- 2 They are living organisms, that their bodies consist of one cell only. ()
- 3 They are living organisms, that their bodies consist of many cells. ()

- 4 It is a gelatinous liquid, that is found inside the cell. ()
- 5 It is the structure, that surrounds the animal cell from outside ()
- 6 It is often located at the center of the cell. ()
- 7 They are different tiny structures inside the cell, and each type of them has a special function. ()
- 8 They are cell organelles, that provide the cell with the needed energy. ()
- 9 An organelle, that helps in assembling and transporting proteins inside the cell to build and repair the cell. ()
- 10 An organelle, which helps in packing and transporting different materials between the cells and out of the cell. ()
- 11 They are scientists who study cells. ()
- 12 A stain that is used to color the nucleus of the cell in blue color. ()
- 13 It is the organ which contracts and relaxes to help in the movement of the body ()
- 14 The system which helps the body to move ()
- 15 They are muscles that are attached to the bones of skeletal system ()
- 16 Organisms characterized by having a single cell. ()
- 17 A membrane that allows water to flow in and out of the cell. ()
- 18 The building units of life on Earth. ()
- 19 The building units of living organisms. ()
- 20 A device used to examine very small objects. ()
- 21 One of the components of the cell in which organelles move. ()
- 22 -A group of similar or identical cells within an organism, grouped together and performing the same function. ()
- 23 Living organisms composed of more than one cell. ()
- 24 Structures within the cell that have specific functions. ()

- 25 A group of tissues jointed together and performing a particular function. ()
- 26 Organelles help in assembling and transporting proteins to build and repair cells. ()
- 27 One of the cell organelles stores waste, nutrients, and water. ()
- 28 An organelle help to package materials within the cell and transport them out of the cell. ()
- 29 A sac-like structure used to storage of nutrients, water, and waste in plant cells. ()
- 30 A system made up of bones, muscles, ligaments, tendons, and cartilage. ()
- 31 Cells able to store and use energy quickly. ()
- 32 Muscles that humans cannot control. ()
- 33 Muscles that humans can control their contraction and relaxation. ()
- 34 A system that converts complex nutrients into simple substances in the human body. ()
- 35 The main organ in the respiratory system. ()
- 36 Cells in the form of long fibers to allow movement. ()
- 37 A group of tissues that perform a specific function. ()
- 38 A group of organs that work together to perform a specific function. ()
- 39 Cells in the form of long fibers that allow for movement and able to store and use energy quickly. ()
- 40 A tool used to see the components of a cell. ()
- 41 The building block of a living organism. ()
- 42 Living organisms whose bodies consist of only one cell. ()
- 43 The powerhouses of the cell. ()
- 44 A structure within the cell that has a specific function. ()

- 45 A group of organs that work together. ()
- 46 The organelle that responsible for controlling cellular activities such as making protein. ()
- 47 Surrounds the plant cell to give it a definite shape. ()
- 48 One of the components of the cell that prepares and packages materials within the cells and transported them out of the cell. ()
- 49 A component of the cell characterized by its ability to store nutrients, water, and waste. ()
- 50 The organ that pumps more blood to feed the muscles required for movement. ()
- 51 The organ that sends instructions to the muscles. ()
- 52 A system that consists of the bones, ligament, tendons, muscles and cartilage. ()
- 53 Cells in the shape of long fibers to allow movement. ()
- 54 Cells able to store and use energy quickly. ()
- 55 A system that converts complex foods into simple substances. ()
- 56 An essential organ in the respiratory system. ()
- 57 A system that secretes hormones to help the body respond to danger. ()
- 58 A system that transports gases, hormones, and nutrients to all parts of the body. ()

4 Complete the following sentences:

- 1 A muscle tissue is composed of a group of that do the same function.
- 2 The cellulose makes up the which is found in cells only.
- 3 The body consists of a group of which consist of a group of organs.
- 4 Skeletal muscles can store and use quickly
- 5 Bundles of muscle tissues are organized to form the
- 6 Musculoskeletal system allows the of the body, and it consists of two systems which are system and system.

- 7 is the building block of living organisms.
- 8 allows water to pass in and out of the cell.
- 9 Cells take in the materials they need and using them to get
- 10 Cells need and to grow and live.
- 11 is used to see the components of the cell.
- 12 spreads inside the membrane and supports the organelles.
- 13 Bacteria are considered organisms.
- 14 is considered the main control the cell.
- 15 Plant cells differ from animal cells in that they contain which
- 16 gives it a specific shape.
- 17 The heart is one of the organs that Part of the systems.
- 18 coordinates the movements necessary for the muscles.
- 19 The process of muscle contraction leads to in length.
- 20 A group of similar cells together form
- 21 The digestive process begins in and ends in
- 22 When sensing danger, heartbeats.
- 23 When two muscles work together to do a movement, one of these muscles' contracts while
- 24 the other
- 25 cells are smaller than plant and animal cells.
- 26 A bird's egg contains the number (.....) of cells.
- 27 Living organisms grow and reproduce by increasing of their cells.
- 28 the first scientist that used the word (cell) was
- 29 The cell wall of a plant cell is composed of..... substance
- 30 Specialized types of plant cells perform the process of.....
- 31 Insects have a hard shell-like covering called
- 32 The green color in plant cells is due to their containing the pigment
- 33 is used when examining transparent, colorless cells under a microscope.
- 34 The..... pumps more blood to feed the muscles needed for movement.
- 35 sends instructions to the muscles.
- 36 To pick up a book placed on a desk, your first see the book.
- 37 Hormones are transported to all parts of the body by
- 38 During inhalation, the diaphragm muscle
- 39 Glucose is stored by and in the form of animal starch

5 Give reasons for each of the following :

- 1 The cell allows water to go outside it.

.....

Mr /Menna Hussein

Mrs/Christina Zaghloul

- 2 Plant cells can make photosynthesis process.
.....
- 3 The plant cell has a definite shape.
.....
- 4 The chlorophyll absorbs the energy of the sunlight.
.....
- 5 Mitochondria act as electrical power stations in cities.
.....
- 6 Vacuoles act as storehouse in cities.
.....
- 7 During dangerous situations, the brain send signals to the heart to increase heartbeats
.....
- 8 The nerve cells in the nervous system need nutrients.
.....
- 9 Muscle cells are in the form of long fibers
.....
- 10 The cell membrane controls what materials entre and leave the cell.
.....
- 11 The human body is considered a system.
.....
- 12 The number of cells in an adult is much greater than the number of cells in a small child's body.
.....
- 13 Plant cells and animal cells can be distinguished under a microscope.
.....
.....
- 14 Mitochondria are the powerhouses of the cell.
.....
- 15 Plant cells have a definite shape, while animal cells do not.
.....
- 16 The cell membrane plays an important role in protection the cell.
.....
- 17 There is no system in the body can work alone.
.....



Mr. /Menna Hussein

Mrs/Christina Zaghloul

18 Muscle cells need to be shaped like long fibers.

19 Water is important to the cell.

20 A cell needs energy in the form of food and oxygen.

21 Cells are able to maintain the water balance inside them.

22 A microscope is used to see cells.

23 An organ differs from an organelle.

24 Mitochondria can be matched with a power station.

25 Plant cells can produce their own food, whereas animal cells cannot.

26 Scientists face difficulties in studying cells.

27 Plants can make their own food.

28 Animal cells do not have cell walls.

29 The heart and lungs must work together when responding to danger.

30 The nervous system and other body systems depend on each other.

31 Animals cannot make their own food.

32 Cells must vary in shape and size.

33 Muscle cells are shaped like long fibers.

34 The endocrine system plays an important role in the fight - or-flight response.



Mr./Menna Hussein

Mrs/Christina Zaghloul

35 No system in the body can work alone to do a simple task.

.....

36 Muscle cells do not work alone.

.....

6 What is meant by (Define):

1 Cellular respiration :

2 The cell:

3 Plant cell:

4 Animal cell:

5 Unicellular organisms:

6 Multicellular organisms:

7 Tissue:

8 Organ:

9 System:

10 Selectivity permeability :

11 Involuntary muscles:

12 Voluntary muscles:

7 What is the function of (importance)...?

1 Cell membrane:

2 Mitochondria :

3 Cytoplasm:

4 Nucleus:

5 Endoplasmic reticulum:

6 Golgi apparatus:

7 Cell wall:

8 Vacuoles:

KEEP GOING,



Mr /Menna Hussein

Mrs/Christina Zaghloul

- 9 Chloroplasts:
- 10 the liver and pancreas in the human body:
- 11 Microscope:
- 12 The objective lenses of microscope:
- 13 Skeletal muscles :
- 14 Heart muscle:
- 15 Endocrine system:
- 16 Circulatory system:.....
- 17 Respiratory system:
- 18 Digestive system:
- 19 Write the function of the endocrine system.
.....
- 20 Write the function of each of the following:
A- Small intestine
B- Respiratory system
.....
.....

8 What happens if ...?

- 1 There are no chloroplasts inside plant cells.
.....
- 2 The animal cell is surrounded by a cell wall.
.....
- 3 Chloroplasts are found in the structure of the animal cells.
.....
- 4 The brain of a cyclist when he sees a dangerous situation.
.....

- 5 Too much water enters the cell.
.....
- 6 The microscope is not discovered.
.....
- 7 The muscles contract and relax.
.....
- 8 The properties and components of cells within a living organism do not differ.
.....
- 9 The cell did not get food, oxygen, and water.
.....
- 10 Mitochondria is removed from the cells.
.....
- 11 there is no cytoplasm in the cell?
.....
- 12 there is no nucleus in the cell?
.....
- 13 What happens to the heart when a person is in danger?
.....
- 14 there are no vacuoles in plant cells.
.....
- 15 there are no chloroplasts in plant cells?
.....
- 16 there is no endoplasmic reticulum in plants?
.....
- 17 The heart muscle contracts and relaxes
.....
- 18 the muscles in your arm when you pick up your book from the table?
.....



9 Correct the following statement

- 1 Cells are simple structures that cannot do all the activities that keep the living organism alive. ()
- 2 All cells in a living organism are identical. ()
- 3 All organisms are consist of more than one cell ()
- 4 The scientist who discovered cells is Newton. ()
- 5 The function of city gate guards is similar to that of the vacuole in cells. ()
- 6 We can study cells without the need for a microscope. ()
- 7 The heart rate decreases when exposed to danger or stress. ()
- 8 When the arm is bent, the front muscle relaxes and the back muscle contracts ()

10 Explain the following

- 1 the function of the cell as a building unit of the living organism.
.....
- 2 What the cell needs to get energy
.....
- 3 Explain what meant by: selective permeability?
.....
- 4 Explain what is meant by cellular respiration.
.....
- 5 Explain The function of the Golgi apparatus.
.....
- 6 Explain the difference between unicellular and multicellular organisms.
.....
- 7 How do scientists overcome the difficulty of studying cells?
.....
- 8 "The 3D- microscope has helped both biologists and doctors." **Explain** this.
.....

- 9 **Determine the structure responsible for each of the following:-**
cellular respiration - regulation of the passing of substances which enter or leave the cell.
.....
- 10 **Determine** the tools that are used to examine the components of a cell
.....
- 11 **Describe** the main parts of a microscope.
.....
- 12 **Mention** one important of each of the following: cell wall - nucleus.
.....
- 13 **What is the similarity between** parts of a factory and a cell model? give two examples.
.....
- 14 **Mention** the organ that responsible for the following functions when kicking a ball:
-Seeing the ball.
-Sending instructions to the muscles.
-Pumping more blood to feed the muscles.
- 15 **Mention** four of the body's systems that work together when playing football.
.....
- 16 **List** the components of the musculoskeletal system.
.....
- 17 **What** type of muscle is the eye?
.....



Mr /Menna Hussein
Mrs/Christina Zaghloul

11 compare between each of the following

- 1 Compare between unicellular organisms and multicellular organisms.

.....

.....

- 2 Compare between: The cell membrane and the cell wall.

.....

.....

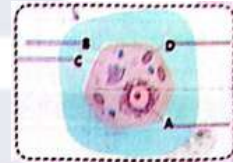
- 3 Compare: The response of the endocrine, circulatory, and respiratory systems to face danger.

.....

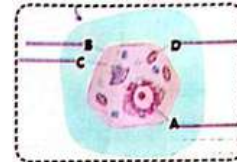
.....

12 Answer the following

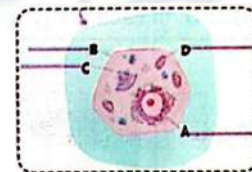
- 1 Explain what letter (c) refers to in the picture in front of you, Identify its function.



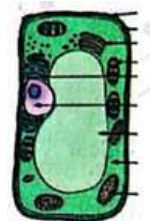
- 2 Explain what letter (A) refers to in the picture in front of you, Identify its function.



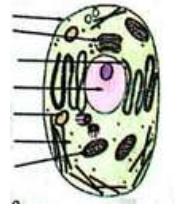
- 3 Explain what letter (D) refers to in the picture in front of you, Identify its function.



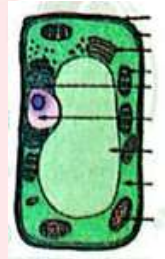
- 4 Determine the green plastids in the figure in front of you and determine their function.



- 5 **Determine** the endoplasmic reticulum in the figure in front of you, determine its function.



- 6 **Determine** the Golgi apparatus in the opposite figure. determine its function.

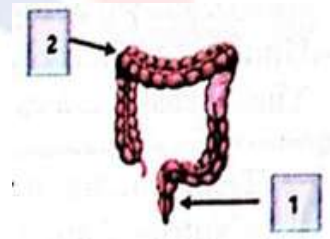


- 7 **Look at the opposite Figure and answer:**

1- Number (1) refers to

2- Number (2) refers to

3- **Write** the function of number (2)



- 8 **Look at the Figure and answer the following:**

1- The heart follows thesystem.



- 9 **Mention** the name of the tissue in the picture in front of you.



- 10 **Mention** the name of the system on the left side of the figure in front of you.



- 11 **Mention** the name of the system on the right side of the figure in front of you.



- 12 **Look at the figure in front of you and answer:**

- Muscle number () **Muscle in a relaxed state.**

-Muscle number() **is a muscle in a state of contraction.**



13 Various questions:

Determine from the following statements that describe the characteristics and features of the cell.

Statements



All cells in living organisms are exactly the same.

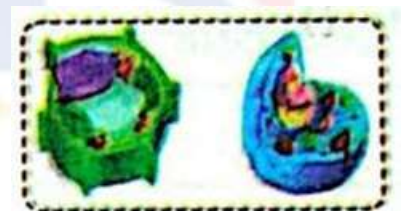
All living organisms are made up of many cells.

Each cell has a nucleus in the center.

All cell types have a cell membrane

- The bodies of living organisms consist of structural units called

The cells of living organisms contain structures that have special functions called



plant
cell

animal
cell

-The opposite image shows the levels of organization in humans.

-..... The simplest level of organization.

-..... The highest level of organization.

-A group of identical cells is called

-The group of different tissues that work together is called

-The group of different organs that work together is forming



write what the following refer to:

The Organelle

.....

The tissue

.....

The organ

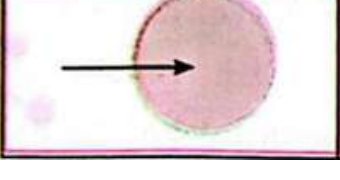
.....

The system

.....

Mr /Menna Hussein
Mrs/Christina Zaghloul

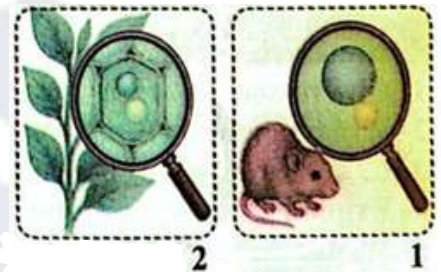
Complete the following table:

Cell component	Name	Function
		
		
		
		

What are a differences and similarities?

- Study the two opposite images, Then answer the following:

- 1- The cell shown in figure (1) is called a cell.
- 2- The cell shown in figure (2) is called a cell



Among the organelles common to both plant and animal cells are:

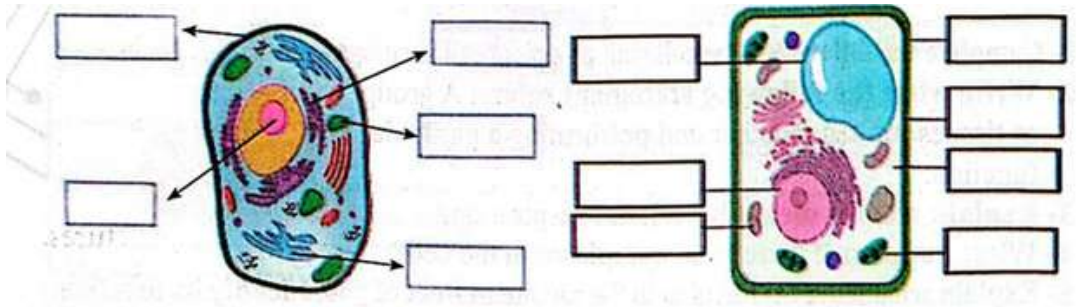
- A) B)
C) D)

- The plant cell is surrounded on the outside by.....

Compare and register:

Vacuole	Golgi apparatus	Chloroplasts
Cell membrane	Cytoplasm	Cell wall
Mitochondria	Endoplasmic reticulum	Nucleus

Use the above components to complete the labels on plant and animal cells in the suitable place on the following two figures:



- Cell scientists work in places called.....where they:

- 1- Design and conduct on cells
- 2- Study how cells in living organisms.
- 3- Some cell scientists work with doctors to observe how cells work in order to:
 - A-.....
 - B-.....
- 4- Some also work with farmers to study.....
- 5- Cells are very tiny, the typical animal cell measures aboutmicrons, or the equivalent of cm in diameter, Therefore cell scientists use specialized equipments to view cells, such as.....



- Cells are often transparent and colorless, making them difficult to see.
- Why do cell scientists stain cells?.....
- An example of a dye that is used is..... which helps to see..... more clearly.



Enables scientists to view cells from the top, sides, and in layers.

How a 3D-microscope works:

- 1-
- 2-
- 3-

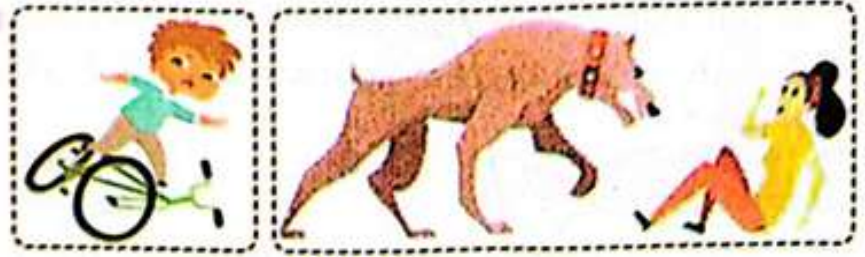
The importance of the 3D microscope:

- 1- It helps biologists in
- 2- It helps doctors in



Mr /Menna Hussein
Mrs/Christina Zaghloul

Look at the opposite pictures and answer the questions:



Describe how you feel when you exposed to extreme fear or stress

Look at the opposite diagram and answer the following questions:

How do the body's systems work together in response to external effect?

- The nervous system
- Respiratory system
- Circulatory system
- Muscular system



Look at the opposite picture, which shows the movement of the arm when drinking water, then answer:

- How does the arm move to pick up a glass of water?
- You see the of a glass
- The sends instructions to the muscles.
- The pumps blood to to feed it.
- The arm muscles to move toward the glass and pick up it.



Notice the opposite diagram and complete the following:

- The digestive system provides while the respiratory system provides
- The system transports digested food and oxygen to the system
- The system controls in the various systems of the body.



What is the building block of a living organism? (.....)

- A living organism is made up of that vary in shape and size.
- A group of similar specialized cells work together to form



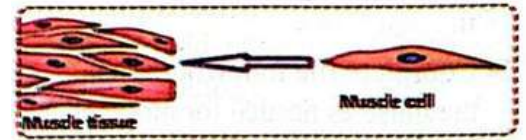
Notice the opposite figure and answer:

- is consists of long fibers that allow movement and are able to store and use quickly.

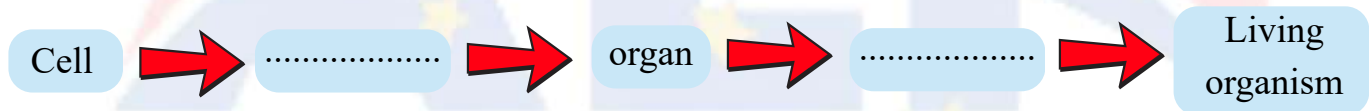
-Muscle cells work with thousands of other muscle cells to form which performs its function effectively.

-Tissues are organized into bundles to form a structure of which performs a specific function.

-Organs work as part of which performs



Notice the following diagram and complete the information:



Notice the opposite figure and answer the following:

-The musculoskeletal system made up of,,, tendons and

-The body's systems work together when kicking a ball. Identify these systems.

- The digestive system and,,, and the excretory system.



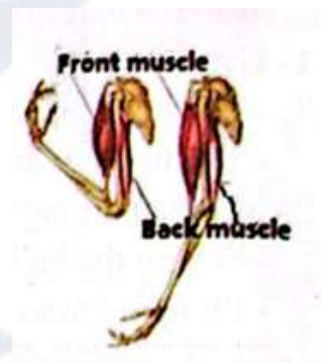
The figure in front of you, which represents the movement of the arm muscles:

- What happen when you straight your arm?

Front muscle: Back muscle:

- What happen when you bend your arm?

Front muscle: Back muscle:



You blink about 10 times a minute without thinking about it, the eyelid muscles when you close your eyelid, which is a muscle, as well as other muscles surrounding the eyeball, help you move your eyes in different directions



-Muscles must contract and relax to allow movement.

-Some muscles are this means that the movement is automatic and uncontrolled, while other muscles are, which means that their movement can be controlled

Voluntary muscles
such as.....
and



Involuntary muscles
such as.....
and



What is the difference between voluntary and involuntary muscles?

Voluntary muscles

Involuntary muscles

- Bending the elbow requires two different muscles
- When bending the arm, the muscle contracts. and the muscle relaxes.
- To straighten the arm, the muscle relaxes and the muscle contracts.
- The muscles that move the bones of the body are the muscles.



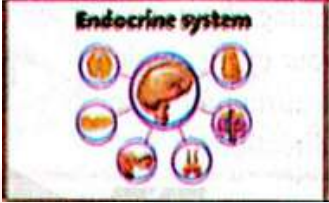
- Two important neck muscles work when you move your head up and down One..... while you lift your head.
- When you pull your head back down, another contracts; therefore, you control the movement of these muscles, so they belong to the..... muscles.

DREAM BIG,
WORK HARD,
MAKE IT
happen.

Mr /Menna Hussein
Mrs/Christina Zaghloul

Complete the following table:

Body systems and their role in the faced with a threat or to run away

	Endocrine system	system	system
Figure			
Structure			
Function			
How to respond to danger	Endocrine glands secrete (chemical substances) which are transported to the organs responsible for (fight/flight)	The beat quickly. As the heart beats faster, it pushes blood to and and organs, and blood pressure increases	The rapid and an increased rate allow the body to send more oxygenated, to the muscles and .brain

1-Detrmine the type of muscle that controls the following organs:

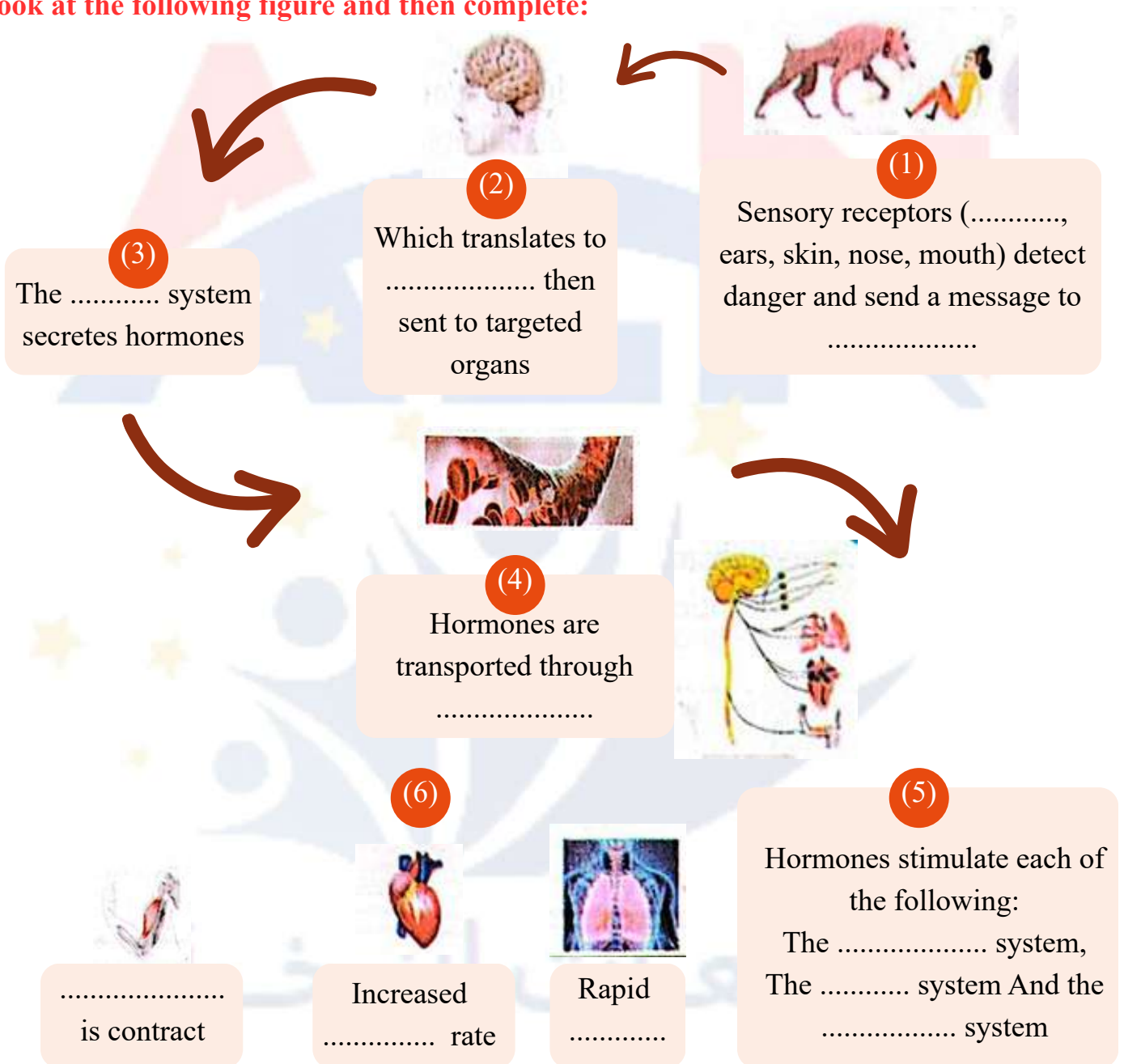
The organ	The type of muscle
The neck	
The stomach	
The heart	



Mr /Menna Hussein
Mrs/Christina Zaghloul

The body's systems integrate during the fight-or-flight response to prepare your body for action.

Look at the following figure and then complete:



- Body system work together to keep your body working properly
Therefore, these systems need to work.
This energy comes from that we eat, as food contains various nutrients including, and



Ir /Menna Hussein

Mrs/Christina Zaghloul

Digestion: Converting into substances that the body can use.
The system responsible for digestion and absorption.

Digestion begins in

-The Jaw muscles move and help to chew food

It easier for chemicals (.....) produced by the to break down and digest food.

-In the mouth, softens the food, and add enzyme to begin the breakdown then Muscles push the food down to towards



-Continuous churning of..... and the secretion of digestive fluids from the stomach and and

-The secreted by liver and pancreas assist in the breakdown once the food moves on to the small intestine.

-Food absorption begins taking place when it passes into..... these nutrients are carried away from the digestive system to the blood, through in the wall of the small intestine.

-Undigested food is passed into The last section is called as These wastes are expelled in the form through the



- Nutrients are transported to different organs via, and the heart is one of these organs.

-Some of these nutrients are used immediately, while the rest are

-The liver and muscles can store sugar, converting it into (a special energy storing) a substance called (animal starch).

-The stored energy come in handy if you find yourself inor Situation.

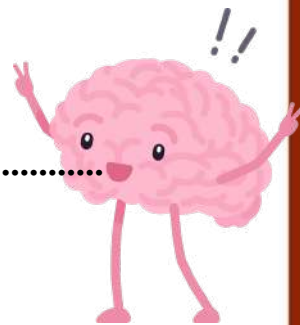
- The liver and muscles can then release the when it is needed.

-Some other nutrients are stored as



1 Choose the correct answer:

- 1 The smallest tiny structures that build up all living organism's bodies are.....
a systems. b **cells.** c organs. d bricks
- 2 We can see the cell of..... without using a microscope.
a bacteria b **plant** c human d **bird's egg**
- 3 Growth of a living organism is resulted from increasing the of cells in its body.
a length b size c **number** d mass
- 4 Microscopes help scientists to discover that is the building unit of living organisms bodies
a brick b **cell** c the Sun d energy
- 5 The body of simple living organisms as bacteria consists of
a **one cell only.** b different cells.
c many cells. d ten cells only.
- 6 You can see the cells of all the following under microscope, except
a onion. b human skin.
c leaf. d **stone**
- 7 All the following parts are from the main parts of the animal cell, except.....
a cell membrane. c cytoplasm.
b **cell wall.** d nucleus.
- 8 The gelatinous liquid which is found inside the cell is known as
a nucleus. b **cytoplasm.**
c cell membrane. d organelles.
- 9 The structure of the plant cell which is made up of cellulose is the
a cell membrane. b nucleus.
c **cell wall.** d cytoplasm.
- 10 A plant cell has the ability to make the photosynthesis process due to the presence of inside it.
a mitochondria b **chloroplasts**
c nucleus d cytoplasm

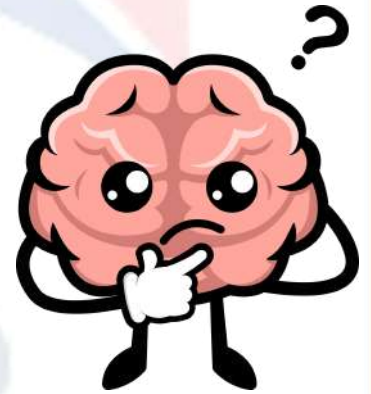


- 11 The organelles which provide the cell with its needed energy are called
- a endoplasmic reticulum. b **mitochondria.**
c golgi apparatus. d cell membrane.
- 12 The cellulose forms the..... of plant cell.
- a cell membrane b **cell wall**
c chloroplasts d sap vacuole
- 13 All the following structures are found in onion cells only and not found in fish cells, except
- a cell wall. b one sap vacuole.
c chloroplasts. d **mitochondria.**
- 14 All the following can be stored inside sap vacuole of plant cell, except
- a **energy.** b nutrients. c water. d waste materials.
- 15 All the following animals have bones in their bodies, except.....
- a cats. b dogs. c birds. d **insects.**
- 16 The animal cell cannot make photosynthesis process, because it doesn't have
- a nucleus. b **chloroplasts.**
c mitochondria. d sap vacuole.
- 17 Most plants appear in color due to the presence of chlorophyll pigment in their cells
- a yellow b blue c **green** d red
- 18 To see the structure of a cell under microscope we must color it by using
- a **stains.** b water. c sunlight. d vinegar.
- 19 When you feel nervous, your heartbeats increase, this indicates the interaction between systems
- a digestive and nervous b digestive and circulatory
c **nervous and circulatory** d digestive and respiratory

Mr /Menna Hussein

Mrs/Christina Zaghloul

- 20 In a dangerous situation, your eyes send the information to the to perform the suitable action.
 a **brain** b stomach c lungs d heart
- 21 Muscles of stomach and muscles of heart can be controlled by system
 a digestive b circulatory
 c **nervous** d respiratory
- 22 The system which transfers nutrients from the digestive system to the different muscles of the body is the system
 a **circulatory** b nervous
 c respiratory d excretory
- 23 The muscle is considered as.....
 a a cell. b a tissue. c **an organ.** d a system
- 24 Among the organs of musculoskeletal system are
 a **muscles and bones of arm.** b muscles of arm and lungs.
 c bones and heart. d lungs and heart.
- 25 Your leg moves due to contraction and relaxation ofconnected to the bones of leg.
 a hairs b toes c skin d **muscles**
- 26 Among the organs which contain both involuntary and voluntary muscles is the
 a heart. b arm. c **eye.** d leg.
- 27 All the following are from types of blood vessels, except
 a arteries. b **heart.** c veins. d blood capillaries.
- 28 Circulatory system can transport all of the following substances through all the body parts, except
 a nutrients. b gases. c hormones. d **bones**
- 29 The systems of the human body get their needed energy from
 a the Sun. b water. c **food.** d carbon dioxide.



- 30 You can use your muscles to help the teeth chew the food.
 a eye b upper arm c **jaw** d hand
- 31 Digestion process starts in your
 a **mouth.** b esophagus.
 c stomach. d small intestine.
- 32 Absorption of nutrients inside the body occurs in the.....
 a large intestine. b **small intestine.**
 c heart. d stomach.
- 33 The large intestine absorbs from the undigested food.
 a nutrients b **water** c blood d urea
- 34 The part of large intestine which stores the feces until it leaves the body is the
 a **rectum.** b colon. c esophagus. d anus.
- 35 The organs which can store glucose and convert it into glycogen are
 a liver and pancreas. b muscles and stomach.
 c esophagus and stomach. d **liver and muscles.**

2 Put (✓) or (X):

- 1 All animal cells have a nucleus. (X)
- 2 Growth of living organisms depends on increasing the number of cells (✓)
- 3 Chloroplasts are found in the cells of banana plant leaves. (✓)
- 4 Mitochondria convert sugar inside the cell into the energy needed to make the cell do its vital processes (✓)
- 5 Cellular respiration takes place inside cells with the help of the golgi apparatus (X)
- 6 The cell wall surrounds the cell membrane of animal cells (X)
- 7 There is one big vacuole in each cell of onion plant (✓)
- 8 The exoskeleton gives some insects their shapes. (✓)
- 9 Cell biologists are scientists who study rocks (X)
- 10 When you hear a clock alarm, your brain sends a signal to the muscles to move and wake up. (✓)

Mr /Menna Hussein

Mrs/Christina Zaghloul

- 11 The digestive system depends on the circulatory system to deliver the nutrients to all body parts (✓)
- 12 The brain and the heart are from parts of the circulatory system. (✗)
- 13 A group of different tissues can form a system. (✗)
- 14 Muscle cells are in the form of long fibers to allow movement (✓)
- 15 Muscle cells cannot store and use energy quickly. (✗)
- 16 Musculoskeletal system consists of muscular system and digestive system. (✗)
- 17 The body can move by the help of the skeletal system only (✗)
- 18 The forearm moves up towards your shoulder when the muscle in front of the upper arm contracts (✓)
- 19 Heart muscle is considered as voluntary muscle. (✗)
- 20 Heart muscle contracts and relaxes all the time without stopping (✓)
- 21 All skeletal muscles are considered as involuntary muscles and work by contraction (✗)
- 22 Endocrine system secretes hormones that control the increasing of your breathing rate during danger (✓)
- 23 Digestion begins when the food enters esophagus. (✗)
- 24 Saliva is a liquid which is secreted by salivary glands inside your mouth (✓)
- 25 Absorption of digested food takes place in the small intestine. (✓)
- 26 Glycogen is converted into glucose and stored in liver and muscles. (✗)
- 27 When your body needs energy, liver and muscles convert glycogen into glucose again. (✓)

3 Write what the following statement refers: (scientific term)

- 1 The main building unit of living organisms bodies that can do all vital processes. (**Cell**)
- 2 They are living organisms, that their bodies consist of one cell only. (**Unicellular organisms**)
- 3 They are living organisms, that their bodies consist of many cells. (**Multicellular organisms**)

Mr /Menna Hussein
Mrs/Christina Zaghloul

- 4 It is a gelatinous liquid, that is found inside the cell. (**Cytoplasm**)
- 5 It is the structure, that surrounds the animal cell from outside (**Cell membrane**)
- 6 It is often located at the center of the cell. (**Nucleus**)
- 7 They are different tiny structures inside the cell, and each type of them has a special function. (**Organelles**)
- 8 They are cell organelles, that provide the cell with the needed energy. (**Mitochondria**)
- 9 An organelle, that helps in assembling and transporting proteins inside the cell to build and repair the cell. (**Endoplasmic reticulum**)
- 10 An organelle, which helps in packing and transporting different materials between the cells and out of the cell. (**Golgi apparatus.**)
- 11 They are scientists who study cells. (**Cell biologists**)
- 12 A stain that is used to color the nucleus of the cell in blue color. (**Methylene blue**)
- 13 It is the organ which contracts and relaxes to help in the movement of the body (**A muscle**)
- 14 The system which helps the body to move (**Musculoskeletal system.**)
- 15 They are muscles that are attached to the bones of skeletal system (**Skeletal muscles**)
- 16 Organisms characterized by having a single cell. (**unicellular organisms**)
- 17 A membrane that allows water to flow in and out of the cell. (**Cell membrane (plasma membrane)**)
- 18 The building units of life on Earth. (**Cell**)
- 19 The building units of living organisms. (**Cell**)
- 20 A device used to examine very small objects. (**microscope**)
- 21 One of the components of the cell in which organelles move. (**cytoplasm**)
- 22 -A group of similar or identical cells within an organism, grouped together and performing the same function. (**tissue**)
- 23 Living organisms composed of more than one cell. (**multicellular organism**)
- 24 Structures within the cell that have specific functions. (**organelle**)

Mr /Menna Hussein
Mrs/Christina Zaghloul

- 25 A group of tissues jointed together and performing a particular function. (**organ**)
- 26 Organelles help in assembling and transporting proteins to build and repair cells. (**endoplasmic**)
- 27 One of the cell organelles stores waste, nutrients, and water. (**vacuole**)
- 28 An organelle help to package materials within the cell and transport them out of the cell. (**gogi apparatus**)
- 29 A sac-like structure used to storage of nutrients, water, and waste in plant cells. (**vacuole**)
- 30 A system made up of bones, muscles, ligaments, tendons, and cartilage. (**musculoskeletal system**)
- 31 Cells able to store and use energy quickly. (**muscle cell**)
- 32 Muscles that humans cannot control. (**involuntary muscle**)
- 33 Muscles that humans can control their contraction and relaxation. (**voluntary muscle**)
- 34 A system that converts complex nutrients into simple substances in the human body. (**digestive system**)
- 35 The main organ in the respiratory system. (**lungs**)
- 36 Cells in the form of long fibers to allow movement. (**muscle cell**)
- 37 A group of tissues that perform a specific function. (**organ**)
- 38 A group of organs that work together to perform a specific function. (**system**)
- 39 Cells in the form of long fibers that allow for movement and able to store and use energy quickly. (**muscle cell**)
- 40 A tool used to see the components of a cell. (**microscope**)
- 41 The building block of a living organism. (**Cell**)
- 42 Living organisms whose bodies consist of only one cell. (**unicellular organism**)
- 43 The powerhouses of the cell. (**mitochondria**)
- 44 A structure within the cell that has a specific function. (**Orguneues**)

- 45 A group of organs that work together. (**System**)
- 46 The organelle that responsible for controlling cellular activities such as making protein. (**nucleus**)
- 47 Surrounds the plant cell to give it a definite shape. (**Cell wall**)
- 48 One of the components of the cell that prepares and packages materials within the cells and transported them out of the cell. (**golgi apparatus**)
- 49 A component of the cell characterized by its ability to store nutrients, water, and waste. (**vacules**)
- 50 The organ that pumps more blood to feed the muscles required for movement. (**heart**)
- 51 The organ that sends instructions to the muscles. (**brain**)
- 52 A system that consists of the bones, ligament, tendons, muscles and cartilage. (**musculoskeletal system**)
- 53 Cells in the shape of long fibers to allow movement. (**muscle cell**)
- 54 Cells able to store and use energy quickly. (**muscle cell**)
- 55 A system that converts complex foods into simple substances. (**digestive system**)
- 56 An essential organ in the respiratory system. (**Lungs**)
- 57 A system that secretes hormones to help the body respond to danger. (**endocrine system**)
- 58 A system that transports gases, hormones, and nutrients to all parts of the body. (**circulatory system**)

4 Complete the following sentences:

- 1 A muscle tissue is composed of a group of **cells** that do the same function.
- 2 The cellulose makes up the **cells wall** which is found in **plant** cells only.
- 3 The body consists of a group of **systems** which consist of a group of organs.
- 4 Skeletal muscles can store and use **energy** quickly
- 5 Bundles of muscle tissues are organized to form the **muscle**.
- 6 Musculoskeletal system allows the **movement** of the body, and it consists of two systems which are **muscular** system and **skeletal** system.

- 7 is the building block of living organisms.
- 8 **Cell membrane** allows water to pass in and out of the cell.
- 9 Cells take in the materials they need and using them to get **energy**
- 10 Cells need **oxygen** and **food** to grow and live.
- 11 **microscope** is used to see the components of the cell.
- 12 **cytoplasm** spreads inside the membrane and supports the organelles.
- 13 Bacteria are considered **unicellular** organisms.
- 14 **nucleus** is considered the main control the cell.
- 15 Plant cells differ from animal cells in that they contain **cell wall** which
- 16 gives it a specific shape.
- 17 The heart is one of the organs that Part of the **circulatory** systems.
- 18 **Brain** coordinates the movements necessary for the muscles.
- 19 The process of muscle contraction leads to **short** in length.
- 20 A group of similar cells together form **tissue**
- 21 The digestive process begins in **mouth** and ends in **anus**
- 22 When sensing danger, **increase** heartbeats.
- 23 When two muscles work together to do a movement, one of these muscles' contracts while
- 24 the other **relaxe**
- 25 **Bacteria** cells are smaller than plant and animal cells.
- 26 A bird's egg contains the number (...**1**...) of cells.
- 27 Living organisms grow and reproduce by increasing **number** of their cells.
- 28 the first scientist that used the word (cell) was **Robert Hooke**
- 29 The cell wall of a plant cell is composed of **cellulose** substance
- 30 Specialized types of plant cells perform the process of **photosynthesis**
- 31 Insects have a hard shell-like covering called **exoskeleton**
- 32 The green color in plant cells is due to their containing the **chlorophyll** pigment
- 33 **methylene blue dye** is used when examining transparent, colorless cells under a microscope.
- 34 The **heart** pumps more blood to feed the muscles needed for movement.
- 35 **brain** sends instructions to the muscles.
- 36 To pick up a book placed on a desk, your **eye** first see the book.
- 37 Hormones are transported to all parts of the body by **circulatory system**
- 38 During inhalation, the diaphragm muscle **contract**
- 39 Glucose is stored by **liver** and **muscle** in the form of animal starch

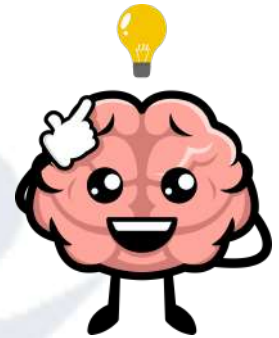
5 Give reasons for :

- 1 The cell allows water to go outside it.

To keep the water balance on both sides of the cell membrane

Mr /Menna Hussein
Mrs/Christina Zaghloul

- 2 Plant cells can make photosynthesis process.
Due to the presence of chloroplasts in the plant cells.
- 3 The plant cell has a definite shape.
Because the plant cell is surrounded by a cell wall which gives it its definite shape.
- 4 The chlorophyll absorbs the energy of the sunlight.
To make the food of the plant through the photosynthesis process.
- 5 Mitochondria act as electrical power stations in cities.
Because mitochondria provide the cell with its needed energy
- 6 Vacuoles act as storehouse in cities.
Because vacuoles store nutrients, water and waste materials inside the cells.
- 7 During dangerous situations, the brain send signals to the heart to increase heartbeats
To push more blood to the body muscles.
- 8 The nerve cells in the nervous system need nutrients.
To perform their functions
- 9 Muscle cells are in the form of long fibers
To allow the movement
- 10 The cell membrane controls what materials enter and leave the cell.
Because it can make selective permeability and allow some material enter to cell and prevent other material
- 11 The human body is considered a system.
Because human body consist of different organs work together to do certain functions
- 12 The number of cells in an adult is much greater than the number of cells in a small child's body.
Because the body of living organisms grow by increasing the number of cells so adults persons have larger numbers of cells than children's
- 13 Plant cells and animal cells can be distinguished under a microscope.
Because plant cell different in structure and shape from animal cell which has (cell wall , chloroplast, and large sub vacuole) not found in animal cell which
- 14 Mitochondria are the powerhouses of the cell.
Because it produce energy by cellular respiration process
- 15 Plant cells have a definite shape, while animal cells do not.
Plant cell have cell wall which give definite shape
- 16 The cell membrane plays an important role in protection the cell.
Make selective permeability which allow some substance enter to cell and prevent other
- 17 There is no system in the body can work alone.
All system work together by integrated way



18 Muscle cells need to be shaped like long fibers.

To allow movement

19 Water is important to the cell.

to survive and stay alive

20 A cell needs energy in the form of food and oxygen.

to carry out all vital activities

21 Cells are able to maintain the water balance inside them.

Because it had cell membrane which keep water balance in both sides of cell

22 A microscope is used to see cells.

Because it is tiny structure can't see with naked eye

23 An organ differs from an organelle.

Because organ is a group of different tissue work together to do certain function inside body ,

Organelle is tiny structures do certain functions inside the cell

24 Mitochondria can be matched with a power station.

because it produce energy by cellular respiration

25 Plant cells can produce their own food, whereas animal cells cannot.

Because plant cell has chloroplast which make photosynthesis process but animal cell hasn't chloroplast

26 Scientists face difficulties in studying cells.

because cell is tiny structure and usually colorless

27 Plants can make their own food.

Because it has chloroplast which make photosynthesis process

28 Animal cells do not have cell walls.

Because it hasn't definite shape and has other structures make its shape like(bones ,exoskeleton)

29 The heart and lungs must work together when responding to danger.

Because in danger situations the breathing rate increases so lung provides more oxygen and heartbeat increase to pump more oxygenated blood to body parts

30 The nervous system and other body systems depend on each other.

Because all systems in our body work together by integrated way

31 Animals cannot make their own food.

because it hasn't chloroplasts

32 Cells must vary in shape and size.

to do different function

33 Muscle cells are shaped like long fibers.

to allow movement

34 The endocrine system plays an important role in the fight - or-flight response.

Because endocrine system secretes hormones that control this response to face that danger or to run away from it such as :1-Contraction of muscles. 2-Increasing the heartbeats.3-Increasing the breathing rate.

Mr /Menna Hussein
Mrs/Christina Zaghloul

35 No system in the body can work alone to do a simple task.

all system work together with integrated way

36 Muscle cells do not work alone.

because the size is very small

6 What is meant by (Define):

- 1 Cellular respiration : **It is the process that takes place inside the mitochondria, where oxygen is used to obtain the chemical energy stored in food to help the cells make their functions.**
- 2 The cell: **It is the main building unit of the living organism's body that carries out all its own vital activities.**
- 3 Plant cell: **It is main building unit of plant's body**
- 4 Animal cell: **It is main building unit of animal's body**
- 5 Unicellular organisms: **They are living organisms that their bodies consist of one cell only**
- 6 Multicellular organisms: **They are living organisms that their bodies consist of many cells**
- 7 Tissue: **It is composed of a group of similar cells that do the same function.**
- 8 Organ: **It is composed of a group of different tissues joined together to do its own function**
- 9 System: **It is composed of a group of different organs to do a certain function.**
- 10 Selectivity permeability : **it is the process that takes place inside the mitochondria, Where oxygen is used to obtain the chemical energy stored in able to help the cells make their functions.**
- 11 Involuntary muscles: **They are muscles that move automatically and you cannot control their movement.**
- 12 Voluntary muscles: **They are muscles that you can control their movement.**

7 What is the function of ...?

- 1 Cell membrane: **-It protects the cell.**
-It controls the substances that can enter or leave the cell through the selective permeability feature.
- 2 Mitochondria : **They provide the cell with the energy it needs by converting sugar inside the cell into energy through cellular respiration.**

- 3 Cytoplasm: **It is the gelatinous liquid (thick liquid) inside the cell in which all other cell parts (nucleus and organelles) float.**
- 4 Nucleus: **It controls all the cell activities such as:**
- **Formation of proteins.** - **Cell division to form new cells.**
- 5 Endoplasmic reticulum: **It helps in assembling (collecting) and transporting proteins inside the cell to build and repair the cell**
- 6 Golgi apparatus: **It helps in packing and transporting different materials:**
 - **between the cells.**
 - **out of the cell.**
- 7 Cell wall: **It surrounds the plant cell to give it a definite shape.**
- 8 Vacuoles: **They store nutrients, water and waste materials inside the cells.**
- 9 Chloroplasts: **They have chlorophyll that absorbs the energy of the sunlight for the plant to make its own food through the photosynthesis process.**
- 10 the liver and pancreas in the human body.
secret juice and enzyme to help small intestine in chemical break down
- 11 Microscope: **It is a device that is used to see the cells and their structures.**
- 12 The objective lenses of microscope: **They have different focusing power to form different degrees of magnified images to allow us see the components of cells.**
- 13 Skeletal muscles : **They are muscles that attached to the bones of skeletal system to allow these bones to move.**
- 14 Heart muscle: **It contracts and relaxes without stopping to allow the heart pumps the blood carrying oxygen to all the body cells.**
- 15 Endocrine system: **It controls the body temperature and the blood pressure.**
- 16 Circulatory system: **It transports blood, gases, nutrients and hormones throughout the body.**
- 17 Respiratory system: **It provides the body with oxygen gas and gets rid of carbon dioxide gas**
- 18 Digestive system: **It converts the complex food into simpler substances that the body can use for energy**
- 19 Write the function of the endocrine system.
secret Hermons and control blood pressure , body temprature

20 Write the function of each of the following:

A- Small intestine **chemical breaking down - absorb nutrients**

B- Respiratory system **Provides body with oxygen and get rid of carbon dioxide**

8 What happens if ...?

1 There are no chloroplasts inside plant cells.

Plants cannot make their own food by photosynthesis process.

2 The animal cell is surrounded by a cell wall.

The animal cell will have a definite shape

3 Chloroplasts are found in the structure of the animal cells.

Animal cells can make their own food by photosynthesis process.

4 The brain of a cyclist when he sees a dangerous situation.

The brain sends a signal to the muscles that contract and allow his body to face the danger.

5 Too much water enters the cell.

cell will swell until bursts

6 The microscope is not discovered.

We can't able to see the cell and cell structure

7 The muscles contract and relax.

muscle work and bone move

8 The properties and components of cells within a living organism do not differ.

cell can't make different function

9 The cell did not get food, oxygen, and water.

cell will die because it need food and oxygen to get energy and water to survive

10 Mitochondria is removed from the cells.

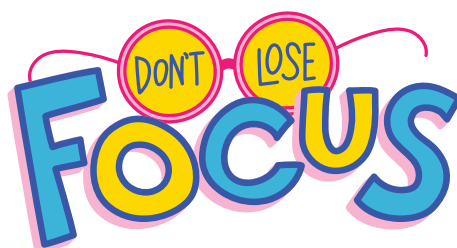
cell can't produce energy because it can't able to make cellular respiration

11 there is no cytoplasm in the cell?

the cell parts not float or move inside cell

12 there is no nucleus in the cell?

Cell can't control all activities and protein can't form and cell can't divide



- 13 What happens to the heart when a person is in danger?
-heart push more blood -heart heat increase -blood pressure increase
- 14 there are no vacuoles in plant cells.
plant cell can't store water , wastes , neutrality
- 15 there are no chloroplasts in plant cells?
Plant can't able to make own food because it can't make photosynthesis process
- 16 there is no endoplasmic reticulum in plants?
Cell can't transport proteins inside it
- 17 The heart muscle contracts and relaxes
Heart can pump blood to all body parts
- 18 the muscles in your arm when you pick up your book from the table?
The front muscle will contract and back muscle will relax

9 Correct the following statement

- 1 Cells are simple structures that cannot do all the activities that keep the living organism alive. (**can**)
- 2 All cells in a living organism are identical. (**different**)
- 3 All organisms are consist of more than one cell (**multicellular**)
- 4 The scientist who discovered cells is Newton. (**Robert Hooke**)
- 5 The function of city gate guards is similar to that of the vacuole in cells. (**cell membrane**)
- 6 We can study cells without the need for a microscope. (**with**)
- 7 The heart rate decreases when exposed to danger or stress. (**increase**)
- 8 When the arm is bent, the front muscle relaxes and the back muscle contracts
 (**Front contract, back relax**)

YOU CAN
DO IT!

Mr /Menna Hussein
 Mrs/Christina Zaghloul

10 Explain

- 1 the function of the cell as a building unit of the living organism.
to carry out all vital activities of living organ
- 2 What the cell needs to get energy
to carry out all vital activities and to survive
- 3 Explain what meant by: selective permeability?
Feature which cell membrane allow some substance to pass and prevent other substance to pass
- 4 Explain what is meant by cellular respiration.
process take place in mitochondria where O₂ and food combine to produce energy
- 5 Explain The function of the Golgi apparatus.
It packing and transporting different materials between the cell and outside the cell
- 6 Explain the difference between unicellular and multicellular organisms.
consist of only one cell ← **consist of many cell**
- 7 How do scientists overcome the difficulty of studying cells?
Scientists discover microscope to see cell structure and staining cells to see cell clearly
- 8 "The 3D- microscope has helped both biologists and doctors." Explain this.
help biologists to study cell components
help doctors to treat cancer
- 9 Determine the structure responsible for each of the following:-
cellular respiration - regulation of the passing of substances which enter or leave the cell.



mitochondria



cell membrane
- 10 Determine the tools that are used to examine the components of a cell **microscope**
- 11 Describe the main parts of a microscope.
Eyepiece - Coarse focus -Fine focus -Objective lenses -Stage
- 12 Mention one important of each of the following: cell wall - nucleus.



It gives plant cell its definite shape



Control all cell activities such as protein formation and cell division
- 13 What is the similarity between parts of a factory and a cell model? give two examples.
1- mitochondria → electrical power station
2- chloroplasts → food factory

- 14 **Mention** the organ that responsible for the following functions when kicking a ball:
 -Seeing the ball. **eye**
 -Sending instructions to the muscles. **brain**
 -Pumping more blood to feed the muscles. **heart**
- 15 **Mention** four of the body's systems that work together when playing football.
nervous system - musculoskeletal system - circulatory system - respiratory system
- 16 **List** the components of the musculoskeletal system.
bones - muscle - ligaments - tendons - cartilage
- 17 **What** type of muscle is the eye? $\longrightarrow$ **eye ball $\rightarrow$ voluntary muscle**
eyelid $\rightarrow$ involuntary muscle

11 Compare

- 1 **Compare between** unicellular organisms and multicellular organisms.

consist of only one cell

Consist of only one cell such as bacteria cell

consist of many cells

Consist of many cells such as animal cell and plant cell

- 2 **Compare between:** The cell membrane and the cell wall.

found in animal cell and plant cell
make selective permeability

found only in plant cell
give plant cell definite shape

- 3 **Compare:** The response of the endocrine, circulatory, and respiratory systems to face danger.

releases hormones to help the body prepare to respond to the danger.

pumps blood quickly around the body carrying oxygen, nutrients and hormones to cells.

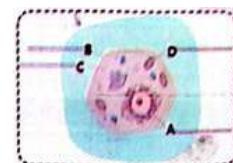
provides different organs with oxygen such as muscles and brain.

12 Answer the following

- 1 Explain what letter (c) refers to in the picture in front of you, Identify its function.

endoplasmic reticulum

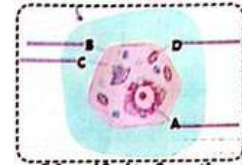
Its function: collect and transport protein inside cell



- 2 Explain what letter (A) refers to in the picture in front of you, Identify its function.

nucleus

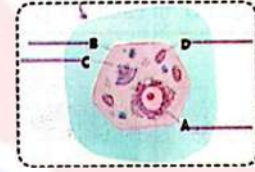
Its function: protein formation cell diversion



- 3 Explain what letter (D) refers to in the picture in front of you, Identify its function.

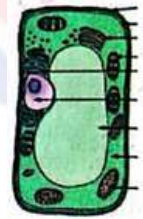
mitochondria

Its function: produce energy by cellular respiration



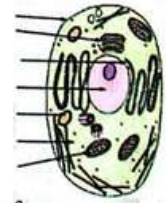
- 4 Determine the green plastids in the figure in front of you and determine their function.

chloroplasts → Its function: make photosynthesis process



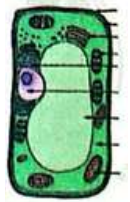
- 5 Determine the endoplasmic reticulum in the figure in front of you, determine its function.

transport protein inside cell



- 6 Determine the Golgi apparatus in the opposite figure. determine its function.

transport different material between and out cells



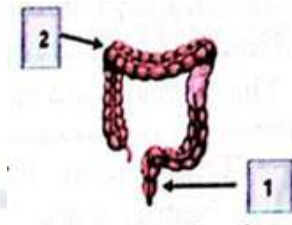
- 7 Look at the opposite Figure and answer:

1- Number (1) refers to ...**rectum**..

2- Number (2) refers to ...**large intestine (colon)**.....

3- Write the function of number (2)

absorbs most of water from the undigested food that leaves the body as solid mass known as feces or stool



- 8 Look at the Figure and answer the following:

1- The heart follows the **circulatory**...system.



- 9 Mention the name of the tissue in the picture in front of you.

muscle tissue



- 10 **Mention** the name of the system on the left side of the figure in front of you.
skeletal system



- 11 **Mention** the name of the system on the right side of the figure in front of you.
muscular system



- 12 **Look at the figure in front of you and answer:**

- Muscle number (1) Muscle in a relaxed state.
- Muscle number(2) is a muscle in a state of contraction.



13 Various questions:

Determine from the following statements that describe the characteristics and features of the cell.

Statements



All cells in living organisms are exactly the same.



All living organisms are made up of many cells.



Each cell has a nucleus in the center.

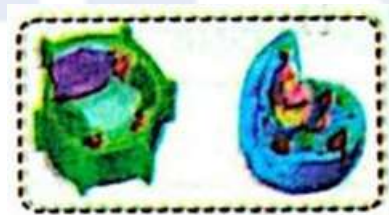


All cell types have a cell membrane



- The bodies of living organisms consist of structural units called **cells**.

The cells of living organisms contain structures that have special functions called **organelles**.



plant
cell

animal
cell

-The opposite image shows the levels of organization in humans.

- **unicellular** The simplest level of organization.

- **multicellular** The highest level of organization.

-A group of identical cells is called **tissues**.

-The group of different tissues that work together is called **organ**.

-The group of different organs that work together is forming **system**.



write what the following refer to:

The Organelle

different tiny structure inside cell each one has specific function

The tissue

It is group of similar cells do some function

The organ

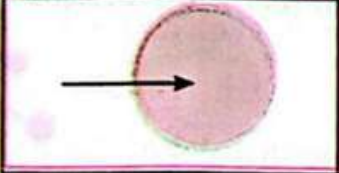
It is group of different tissue joined together

The system

It is group of different organs work together

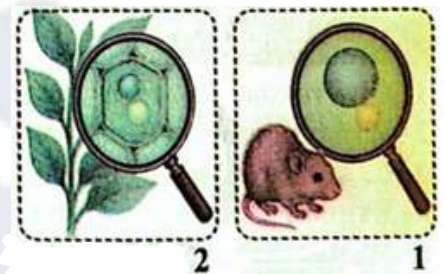
Mr /Menna Hussein
Mrs/Christina Zaghloul

Complete the following table:

Cell component	Name	Function
	nucleus	control cell activities such as - protein formation - cell division
	chloroplast	absorb sunlight to make photo synthesis process
	cell wall	surround the plant cell to give it definite shape
	vacuole	store nutrients , water and waste material

- Study the two opposite images, Then answer the following:

- The cell shown in figure (1) is called a **animal** cell.
- The cell shown in figure (2) is called a **plant** cell



Among the organelles common to both plant and animal cells are:

- A) **mitochondria** B) **endoplasmic reticulum**
 C) **gogi apparatus** D) **nucleus**

- The plant cell is surrounded on the outside by **cell wall**

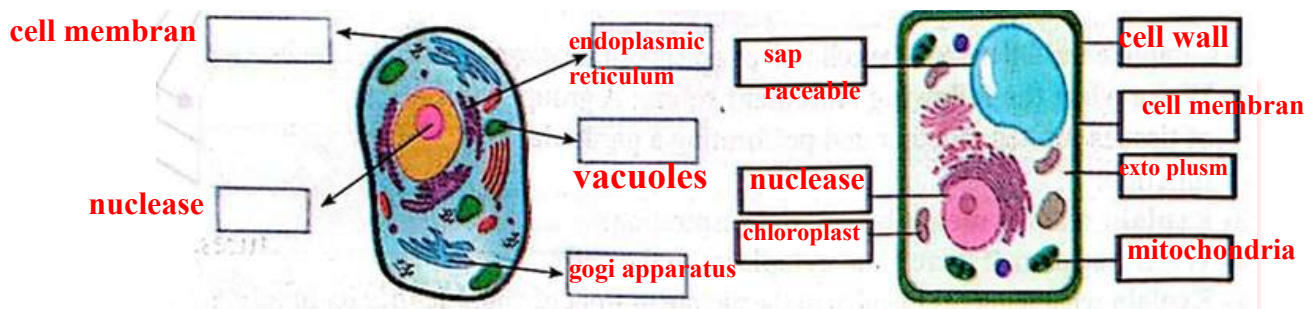
Compare and register:

Vacuole	Golgi apparatus	Chloroplasts
Cell membrane	Cytoplasm	Cell wall
Mitochondria	Endoplasmic reticulum	Nucleus



Mr /Menna Hussein
 Mrs/Christina Zaghloul

Use the above components to complete the labels on plant and animal cells in the suitable place on the following two figures:



Cell scientists:

laboratories

- Cell scientists work in places called.....where they:

- 1- Design and conduct **experiments** on cells
- 2- Study how cells **work** in living organisms.
- 3- Some cell scientists work with doctors to observe how cells work in order to:

A-..... **to repair body parts** B- **How cell respond to medicines**

4- Some also work with farmers to study..... **plant cell**

5- Cells are very tiny, the typical animal cell measures about **0.1**microns, or the equivalent of **0.001** cm in diameter, Therefore cell scientists use specialized equipments to view cells, such as..... **microscope**



- Cells are often transparent and colorless, making them difficult to see.
- Why do cell scientists stain cells? **to make cell structure more clearly**
- An example of a dye that used is..... **methylene blue** which helps to see..... **nucleus** more clearly.



Enables scientists to view cells from the top, sides, and in layers.

How a 3D-microscope works:

- 1-
- 2- **take pictures of cell in layer**
- 3- **computer put layers together**

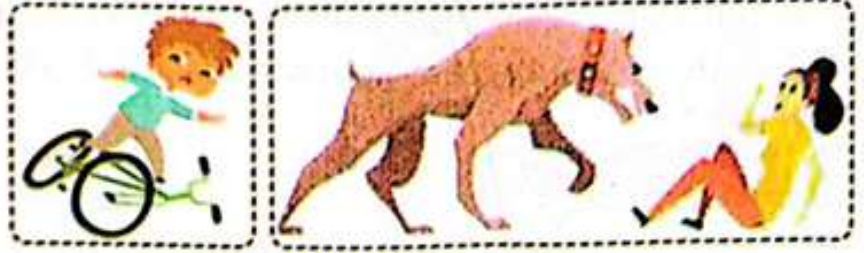
The **importance** of the 3D microscope:

- 1- It helps biologists in
- 2- It helps doctors in **to learn more about cell components** **treat cancer**



Mr /Menna Hussein
Mrs/Christina Zaghloul

Look at the opposite pictures and answer the questions:



Describe how you feel when you exposed to extreme fear or stress ... **I feel nervous.**

Look at the opposite diagram and answer the following questions:

How do the body's systems work together in response to external effect?

- The nervous system **control muscles**
- Respiratory system **provide organs with oxygen**
- Circulatory system **pump blood and transport oxygen and nutrient**
- Muscular system **allow body movement**



Look at the opposite picture, which shows the movement of the arm when drinking water, then answer:

- How does the arm move to pick up a glass of water?
- You see the **cup** of a glass
- The **brain** sends instructions to the muscles.
- The **heart** pumps blood to **muscle** to feed it.
- The arm muscles **contract** to move toward the glass and pick up it.



Notice the opposite diagram and complete the following:

- The digestive system provides **nutrients** while the respiratory system provides **oxygen**
- The **circulatory** system transports digested food and oxygen to the **nervous** system
- The **nervous** system controls in the various systems of the body.



What is the building block of a living organism? (..... **Cell**)

- A living organism is made up of **Cell** that vary in shape and size.
- A group of similar specialized cells work together to form **tissue**



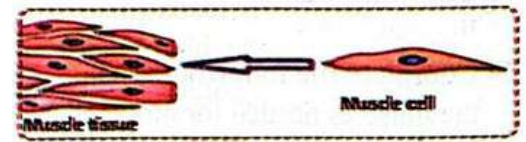
Notice the opposite figure and answer:

- **muscle cell** is consists of long fibers that allow movement and are able to store and use **energy** quickly.

-Muscle cells work with thousands of other muscle cells to form **muscle tissue** which performs its function effectively.

-Tissues are organized into bundles to form a structure of **muscle organ** which performs a specific function.

-Organs work as part of **system** which performs **function**



Notice the following diagram and complete the information:



Notice the opposite figure and answer the following:

-The musculoskeletal system made up of **Bones**, **muscle**, **ligaments**, tendons and **cartilage**

-The body's systems work together when kicking a ball. Identify these systems.

- The digestive system and **respiratory system**, **nervous system**, **circulatory system**, **musculoskeletal system** and the excretory system.



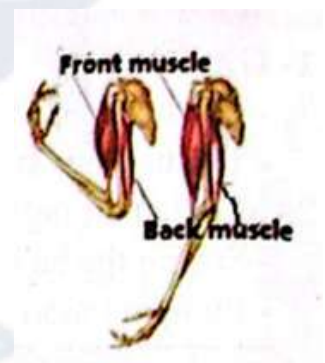
The figure in front of you, which represents the movement of the arm muscles:

- What happen when you straight your arm?

Front muscle: **relaxe** Back muscle: **contract**

- What happen when you bend your arm?

Front muscle: **contract** Back muscle: **relaxe**



You blink about 10 times a minute without thinking about it, the eyelid muscles **involuntary** when you close your eyelid, which is a **voluntary** muscle, as well as other muscles surrounding the eyeball, help you move your eyes in different directions



-Muscles must contract and relax to allow movement.

-Some muscles are **involuntary** this means that the movement is automatic and uncontrolled, while other muscles are **voluntary**, which means that their movement can be controlled

Voluntary muscles
such as **upper arm**
and **neck muscle**



Involuntary muscles
such as **heart**
and **eyelid**



What is the difference between voluntary and involuntary muscles?

Voluntary muscles **can control movement**

Involuntary muscles **can't control movement work automatic**

- Bending the elbow requires two different **voluntary** muscles
- When bending the arm, the **front** muscle contracts. and the **back** muscle relaxes.
- To straighten the arm, the **front** muscle relaxes and the **back** muscle contracts.
- The muscles that move the bones of the body are the **skeletal** muscles.

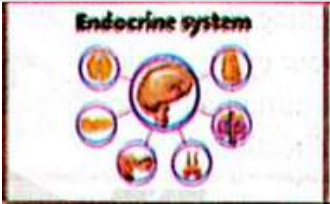


- Two important neck muscles work when you move your head up and down One **relax** while you lift your head.
- When you pull your head back down, another contracts; therefore, you control the movement of these muscles, so they belong to the **voluntary** muscles.

1-Determine the type of muscle that controls the following organs:

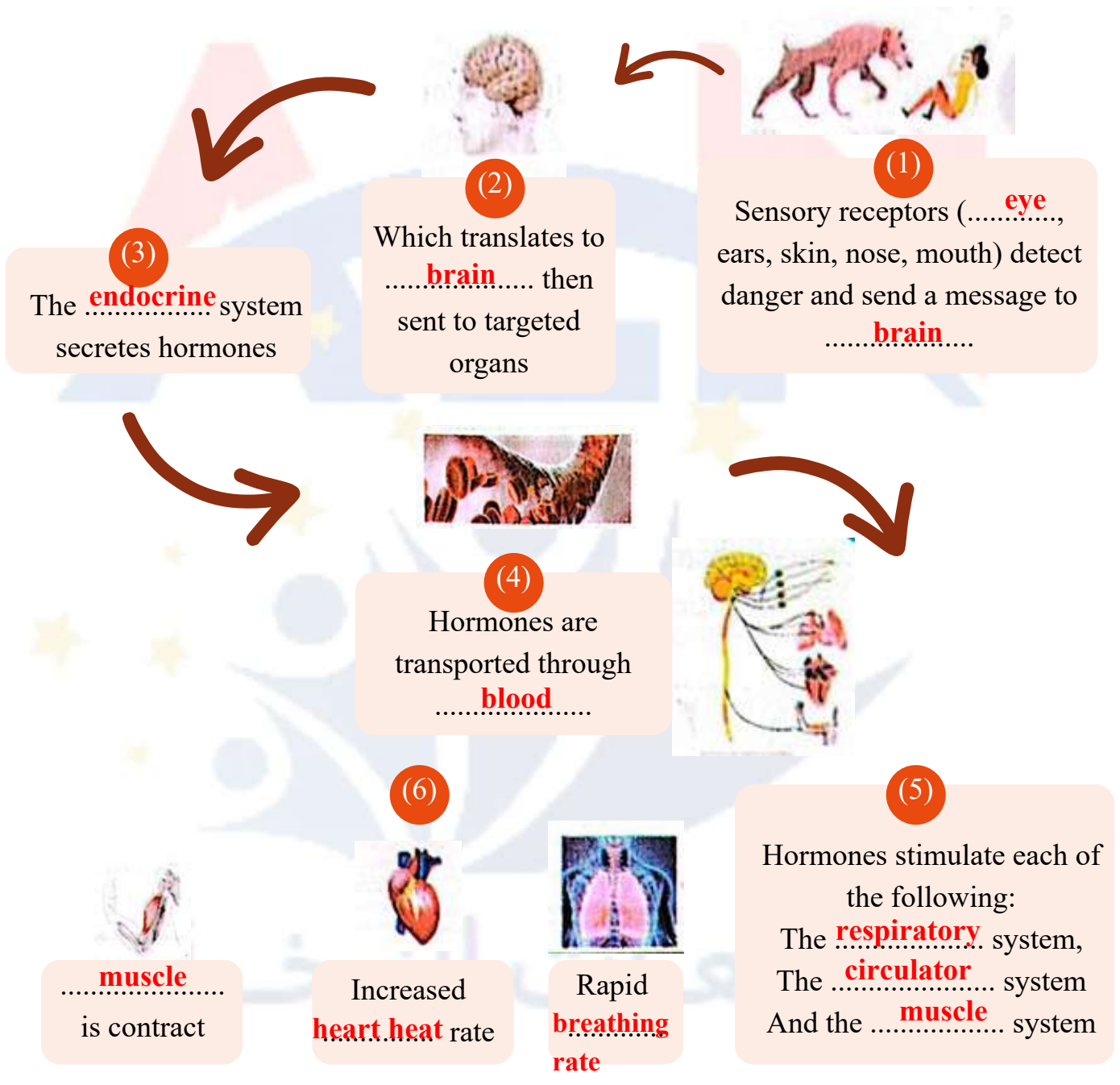
The organ	The type of muscle
The neck	voluntary muscle
The stomach	involuntary muscle
The heart	voluntary muscle

Complete the following table:

	Endocrine system	system circulatory	system respiratory
Figure			
Structure	 glands	 heart blood vessels	 lungs diaphragm air ways
Function	control body temperature and blood pressure	transport blood / guses nutriets and Hermon through body	provide body with.. oxygen gas and get ride of CO2.....
How to respond to danger	Endocrine glands secrete Hermons (chemical substances) which are transported to the organs responsible for respond (fight/flight)	The heart beat quickly. As the heart beats faster, it pushes blood to muscle and brain and diffierent organs, and blood pressure increases	The rapid heart beats and an increased rate breathing allow the body to send more oxygenated blood, to the muscles and .brain



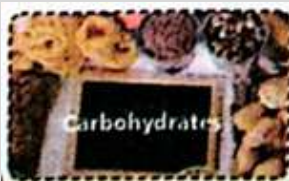
Look at the following figure and then complete:



- Body system work together to keep your body working properly

Therefore, these systems need **energy**..... to work.

This energy comes from **food**..... that we eat, as food contains various nutrients including **protein** **Fats** and **glucose** (carbohydrate)



Mr / Menna Hussein

Mrs/Christina Zaghloul

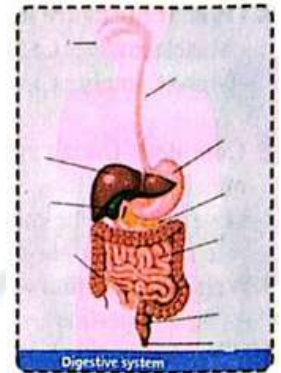
Digestion: Converting **complex** into **simple** substances that the body can use.
The **digestive** system responsible for digestion and absorption.

Digestion begins in..... **mouth**

- The Jaw muscles move and help **teeth** to chew food
- It easier for chemicals (..... **enzyme**) produced by the **salivary gland** to break down and digest food.
- In the mouth, **saliva** softens the food, and add enzyme to begin the **chemical** breakdown then Muscles push the food down **esophagus** to towards **stomach**



- Continuous churning of..... **stomach** and the secretion of digestive fluids from the stomach and **acid** and **enzyme**
- The **jucie** secreted by liver and pancreas assist in the **chemical** breakdown once the food moves on to the small intestine.
- Food absorption begins taking place when it passes into..... **small intestine** these nutrients are carried away from the digestive system to the blood, through **blood vessels**... in the wall of the small intestine.
- Undigested food is passed into **large intestine** The last section is called as **rectum** These wastes are expelled in the form **feces** through the **anus**



- Nutrients are transported to different organs via **circulatory system** and the heart is one of these organs.
- Some of these nutrients are used immediately, while the rest are **store**
- The liver and muscles can store **glucose** sugar, converting it into (a special energy storing) a substance called **glycogen** (animal starch).
- The stored energy come in handy if you find yourself in **need energy** or **danger** Situation.
- The liver and muscles can then release the **glucose** when it is needed.
- Some other nutrients are stored as **glycogen**



حمل الآن

مجاناً وحصرياً

المراجعة رقم (5)

اختبار شهر اكتوبر



Give Reason

- 1- The cell needs energy
To carry out all its life activities and survive
- 2- The cell allows water to go outside it
To keep the water balance on both sides of the cell membrane
- 3- You cannot see the body of a bacteria with your naked eye
Because it consists of only one cell that cannot be seen by naked eyes
- 4- Scientists tend to use microscope in their research
to discover more information about the cell and exchange these information
- 5- We must rotate the coarse focus and fine focus during examining a sample under microscope
To see a clear image for the sample under the microscope
- 6- Cats are considered as multicellular organisms
Because their bodies consist of many cells
- 7- Plant cells can make photosynthesis process
Because they have chloroplasts on plant cells
- 8- Both of endoplasmic reticulum and Golgi apparatus are involved in transportation process inside and outside the cell
Because endoplasmic reticulum transports protein inside the cell and Golgi apparatus transports different materials between the cells and out of the cell



9- Plant cells have a definite shape
Because the plant cell is surrounded by cell wall which gives it the definite shape

10- Chlorophyll absorbs the energy of the sunlight
To make the food of the plant through the photosynthesis process

11- Mitochondria act as electric power stations in cities
Because they provide the cell with its needed energy

12- Vacuoles act as storehouses in cities
Because they store nutrients, water, and waste materials

13- Some cell biologists work with doctors

To watch how cells can work to repair body parts or how cells respond to different medicines

14- We must stain cells before examining them under microscope
Because cells are usually clear and colorless, so it is hard to see them under microscope

15- Digestive system helps skeletal system in fracture healing
Because it provides the skeletal system with nutrients needed for fracture healing

16- The nerve cells in the nervous system need nutrients
To perform their functions

17- The importance of nervous system for the muscles of heart
Because it controls the movements of heart muscles

18- Muscle cells are in the form of long fibers
To allow movement



- 19- Muscle cells don't work alone
Because the size of the muscle cell is very small
- 20- Skeletal system cannot do the function of movement without muscular system
Because skeletal muscles that is attached to bones of skeletal system allow bones to move
- 21- Cardiac muscles are considered as involuntary muscles
Because they move automatically, and you cannot control their movement
- 22- Cardiac muscles contract and relax without stopping
To allow the heart pumps the blood carrying oxygen to all the body cells
- 23- The muscles that surround the eyeball are considered voluntary muscles
Because you can control the movement of the eyeball muscles
- 24- When the body faces a danger, the heartbeats increase
Because endocrine system secretes hormones which cause increasing of heartbeats rate to face danger
- 25- The body needs to convert complex food into simpler substances
Because the body cells need these simpler structures to get energy and grow
- 26- Saliva plays an important role in digestion of food inside the mouth
Because saliva softens the food and start breaking down it



- 27- Stomach secretes a digestive fluid when the food reaches it
To allow more food breakdown
- 28- Walls of small intestine contain blood vessels
To carry the nutrients to all body parts
- 29- Undigested food becomes solid mass inside the large intestine
Because the large intestine absorbs most of water from the undigested food
- 30- The liver and muscles convert the stored glycogen into glucose sugar
To provide the body with its needed energy
- 31- Importance of excretion process to your body
It collects the waste materials produced by the cells and removes them from the body to keep it healthy
- 32- The digestive system does not share in excretion process
Because it does not work on the waste materials produced from burning food inside the body cells
- 33- The two kidneys contain many nephrons
To filter the blood and remove harmful substances from the body
- 34- Formation of urea inside the human body
Due to the break down proteins inside the body cells
- 35- Blood cells and proteins cannot pass through the kidney's nephrons
Because blood cells and proteins are large
- 36- Diabetic must give themselves regular shots of insulin
To regulate the sugar level in blood



What happens

- 1- If there is much water enters the cell
The cell will swell until it bursts
- 2- If the cell does not get its needs of nutrients, oxygen, and water
The cell cannot get its needed energy and will die
- 3- If the number of cells is increased in the body of a baby
The baby will grow
- 4- If scientists were not invented the microscope
They could not discover more information about the tiny particles and cells
- 5- If you examine a sample of plant cells using the low power objective lens of microscope
You will see the cells in small size
- 6- If there are no chloroplasts inside the plant cells
Plant cells cannot make photosynthesis process
- 7- If selective permeability feature is absent from cell membrane
The cell cannot control the substances that enter or leave the cell
- 8- If sugar does not reach mitochondria inside the cell
Mitochondria cannot make cellular respiration and cannot provide the cell with its needed energy
- 9- If the animal cell is surrounded by cell wall
The animal cell will have a definite shape



- 10- If there are no chloroplasts in plant cells
Plant cells cannot make their own food by photosynthesis process
- 11- If there are no bones found in the body of the cat
They body of the cat will not have a definite shape
- 12- If we stain the nucleus of cheek cells with methylene blue
We can see the nucleus of cheek cells as a blue area
- 13- To the brain of a cyclist when he is exposed to a dangerous situation
The brain sends a signal to the muscles to contract and allow his body to face the danger
- 14- To your leg if the muscles found in it are damaged
The leg cannot move
- 15- To the muscles in front of the upper arm and muscles in the back of the upper arm when the forearm moves down away from your shoulder
The muscles in the front of the upper arm relax while the muscles in the back of the upper arm contract
- 16- To the human body if the cardiac muscles don't contract and relax for a long period of time
The heart cannot pump the blood that carries oxygen to all body cells and the human will die
- 17- To the human body when the heartbeats increase during danger
The heart pumps more blood to the muscles, the heart and other organs and the blood pressure increases



- 18- To the lungs when the diaphragm muscle contracts
The lungs take in the air rich in oxygen gas
- 19- If complex nutrients don't convert into simple substances inside your body
They cannot be used by body cells to get energy and grow
- 20- If saliva is not secreted during chewing the food inside your mouth
The food cannot be soften and chemical break down will not happen
- 21- If pancreas and gall bladder don't secrete their enzymes in small intestine
The chemical breakdown of food will not happen
- 22- If your body does not get rid of waste
The body will get sick
- 23- If the blood that carries waste materials passes through nephrons of the two kidneys
The blood will be filtered from harmful substances
- 24- If the blood does not pass through the two kidneys during its circulation inside the human body
The blood will not be filtered from the waste materials and the body will get sick
- 25- If the pancreas does not make its function correctly
The person will be infected with diabetes disease



حمل الآن

مجاناً وحصرياً

اختبارات

اختبار شهر اكتوبر



Model (1)

Question One:

A) Choose the correct answer from the following:

1. Photosynthesis process takes place in the , while cellular respiration process takes place in the
- | | |
|-------------------------------|-------------------------------|
| a. nucleus – cytoplasm | b. mitochondria - nucleus |
| c. mitochondria - chloroplast | d. chloroplast – mitochondria |

2. Which selection of organs does the human body use to move gases in and out the body?

- | | |
|---------------------------------|---|
| a. Heart, veins and arteries | b. Nose, trachea, and lungs |
| c. Muscles, cartilages and bone | d. Pancreas, gallbladder and adrenal glands |

3. Which statement about the cells is false?

- | | |
|--|--|
| a. All living organisms are composed of cells. | b. All cells come from existing cells. |
| c. Most cells are microscopic in size. | d. All cells have a nucleus. |

4. An unaided human eye can't see all the following, except

- | | |
|---------------------|-----------------------------------|
| a. an onion's cell | b. a skin's cell |
| c. a bacterial cell | d. a bird's unfertilized egg cell |

B) Write the scientific term:

The liquid material that is necessary for cell to maintain the balance on both sides of the cell membrane. (.....)

Question two: A: Put True or False:

- | | |
|--|-----|
| 1. All cells are formed of organelles, each of which performing a different function. | () |
| 2. The circulatory system releases hormones to fight a danger or to run away from it. | () |
| 3. Increasing the number of the living organism's cells occurs during reproduction process only. | () |
| 4. We need a microscope to see smaller cells because they are visible to our unaided eyes. | () |

B: Complete the following:

1. The body of a living organism is made up of a group of , while organs consist of a group of different



Question three:

A) Choose from column (B) what suits it in column (A)

(A)	(B)
1. Nucleus	a. It is a gelatinous liquid which other organelles float.
2. Cell membrane	b. It is responsible for making photosynthesis process inside plant cell.
3. Chloroplast	c. It is the command of the cell and responsible for cell division and making protein.
4. Cytoplasm	d. controls the substances passing into or out of the cell.

1. 2. 3. 4.

B: Answer the following questions:

The opposite diagram represents the



Model (2)

Question One: A: Choose the correct answer:

1. Which two organelles are involved in transportation?

- a. Nucleus and endoplasmic reticulum b. Mitochondria and nucleus
c. Chloroplast and Golgi apparatus d. Endoplasmic reticulum and Golgi apparatus

2. The musculoskeletal system consists of

- a. muscles b. bones c. tendons d. all the previous answers

3. Which of the following is a list of components of a body system in order from the least complex to the most complex?

- a. Tissue, cell, organ, body system b. Cell, tissue, organ, body system
c. Body system, organ, cell, tissue d. Organ, tissue, cell, body system

4. When two muscles work together to carry out a movement, one muscle while the other

- a. moves, stays the same b. contracts, relaxes
c. stays the same, relaxes d. stays the same, contracts

B: Give reasons for:

- ① A plant is considered a multicellular organism.
-
-

Question Two: A: True or False:

1. Every system in the body works individually when exposed to danger. ()
2. Microscopes help scientists to discover that cell is the building unit of living organisms' bodies. ()
3. Multicellular organisms consist of only one single cell, such as the plant. ()
4. Heart is made of a type of involuntary muscles known as skeletal muscles. ()
5. Selective permeability feature takes place through the cell wall. ()

B: Write the scientific term:

1. It is a system that consists of a group organs, such as bones, muscles, ligaments, tendons and cartilages. (.....)

Question Three: A: Complete the following sentences, using the given words between brackets:

(Mitochondria - organelles - endoplasmic reticulum - nucleus – cellular respiration - nutrients)

1. Digestive system provides the nerve cells with which are needed to perform their functions.
2. The small structures that form cells are called
3. collecting and transporting proteins produced by the through cells.
4. convert sugar into energy that is needed for cell activities through process.

B: Correct underlined words:

1. The cell will shrink when too much water keeps entering it.



Model (3)

Question One: A: Choose the correct answer:

1. Which of the following is NOT a characteristic of cells?

- a. They are the smallest units of life.
- b. They can perform specific functions.
- c. They are visible to the naked eye.
- d. They can reproduce.

2. The in the cell resembles the powerful brick wall of a city.

- a. nucleus
- b. cell wall
- c. cytoplasm
- d. cell membrane

3. Nucleus is responsible for controlling

- a. formation of proteins only.
- b. cell division only.
- c. formation of proteins and cell division.
- d. no correct answer

4. Among the organs of musculoskeletal system are

- a. muscles and bones of arm.
- b. muscles of arm and lungs.
- c. bones and heart.
- d. lungs and heart.

B: Write the scientific term:

1. A sac-like organelle that stores nutrients, water, and waste materials.
(.....)

Question Two: A: Complete the following sentences using the give words:

(Bones – cell membrane -photosynthesis – nucleus -hormones – one – bone – exoskeleton -adrenal glands)

- 1. The contraction of a muscle moves a in direction(s).
- 2. Cells of plants are characterized by the presence of chloroplasts which are responsible for making process.
- 3. All cells are composed of but not all cells have a
- 4. support the fish body shape, while a/an supports that of insects.
- 5. During a fight-or-flight response, are released by the

Question Three: A: Put true or false:

- 1. All cells are composed of the cell wall.
- 2. Digestive system transfers oxygen gas to all muscles in your body.

3. We can use the examined sample in bigger size when using the lower power objective lens.
4. The basic needs of a cell are the same as the basic needs of living organisms.

B: Complete the following sentences:

1. In the photosynthesis process, absorb(s) sunlight where use(s) it to make the plant's food.

Model (4)

Question One: A: Choose the correct answer:

1. The animal cell cannot make photosynthesis process, because it doesn't have

- a. nucleus.
- b. chloroplasts.
- c. mitochondria.
- d. vacuole.

2. Which of the following structures are found in both plant cells and animal cells?

- a. cell wall.
- b. one large vacuole.
- c. chloroplasts.
- d. mitochondria.

3. Among functions of endocrine system is

- a. digesting food into small pieces.
- b. controlling the muscles of heart and stomach.
- c. providing the muscular system with its needed food.
- d. controlling the body temperature and blood pressure.

4. Which one of the following describes the contribution of Robert Hooke to the field of microscopy?

- a. He invented the earliest microscope.
- b. He observed human cells.
- c. He described and named cells.
- d. He discovered the nucleus of a cell.

B: Give a reason: The heart is an involuntary muscle.

.....
.....



Question Two: A: Put True or False:

1. There must be a water imbalance at the two sides of the cell membrane, so that the cell won't burst. ()
2. When you stressed, adrenal glands secrete hormones that cause several changes in your body such as increasing heart rates and breathing rates. ()
3. The green color of plants is due to the presence of vacuoles in their cells. ()
4. When we examine the specimen under a microscope using a high-power objective lens, it helps us to see the specimen in greater details. ()

B: What happens if:

The cell membrane is absent in an animal cell.

.....

.....

Question Three:

A: Write the scientific term:

1. They are muscles that have an automatic movement that you can't control. (.....)
2. A stain can be used to color a specific part of cells, such as the nucleus of cheek-lined membrane cells. (.....)
3. They are structural, functional, biological units of all living organisms. (.....)
4. An organelle that found in plant cells to carry out photosynthesis process. (.....)

B: What happens if: The cells couldn't carry out cellular respiration.

.....

.....

B: Study the following figures, then complete the sentences below:

- ① Figure (.....) represents a bacterial cell, as it consists of cell(s).
- ② Living organisms are classified into unicellular and multicellular organisms according to their cells.

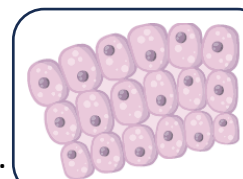


Figure (A)

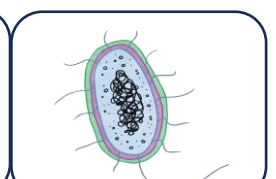


Figure (B)

Model (5)

Question One: A: Choose the correct answer:

1. Which of the following is found in an acacia plant leaf and is not found in human?

- a. Cell wall b. Mitochondria c. Cell membrane d. Cytoplasm

2. All the following muscles work in pairs as one muscle contracts, while the other muscle relaxes, except

- a. upper arm muscles. b. forearm muscles
c. abdomen muscles d. heart (cardiac) muscles

3. The nucleus was discovered during an observation of numerouscells.

- a. animal b. bacterial c. human d. plant

4. You can change the power of magnifying of a microscope by using another

- a. objective lens b. eyepiece c. mirror d. arm

B: Write the scientific term:

The smallest building unit of living organisms.

(.....)

Question Two: A: True or False:

1. The cells of plant have definite shapes due to the presence of cell membranes.

()

2. In dangerous situations, nervous system only allows your body to face the danger.

()

3. A stomach consists of a group of tissues.

()

4. When you start to run faster, there's an interaction between your heart and muscles.

()

5. Endoplasmic reticulum is collecting and transporting proteins inside the cell to build and repair the cell.

()

B: Give a reason:

Muscles cells need to be shaped like long fibers.

.....
.....



Question Three: A. Matching

(A)	(B)
1. Mitochondria	a. It is a tool used to examine the structures of cell.
2. Voluntary muscles	b. They are living organisms their bodies are made up of many cells.
3. Microscope	c. It is a stain used to color specific parts in the cells.
4. Multicellular organism	d. They are powerhouses that supply cells with energy needed.
5. Methylene blue dye	e. They are muscles that you can control their movements.

1. 2. 3. 4. 5.

B. What happens if:

There is no chloroplast inside the plant cells.

.....
.....

Model (6)

Question One: A: Choose the correct answer:

1. The muscles of are involuntary muscles.

a. neck b. abdomen c. forearm d. heart

2. All the following are multicellular living organisms, except

a. acacia trees b. cats c. bacteria d. humans

3. The release(s) energy from food to power the cell.

a. cell wall b. nucleus c. mitochondria d. cell membrane

4. system provides nutrients for the skeletal system to grow and repair itself.

a. Nervous b. Digestive c. Muscular d. Respiratory

B: Complete the following sentences:

1. is a group of similar cells that perform a specific function.

2. maintains water balance on both sides of the cell

Question Two: A: Correct the underlined words:

1. When your eyes see a dangerous situation, the stomach sends a signal to the muscles to contract.
2. Eyeiece lenses in microscopes have different focusing power to form different degrees of magnified images.
3. Cell wall is the part that is stained by methylene blue dye.
4. Skeletal system work with blood to allow movement.

B: Give a reason:

The cells of a multicellular organism are different in shape and size.

.....

.....

Question three:

A: Choose from column (B) what suits it in column (A)

(A)	(B)
1. Respiratory system	A. Producing hormones that regulate many process in the body.
2. Muscles cells	B. is a structure that stores water, nutrients and wastes.
3. Endocrine system	C. Helps the body to take in oxygen gas and expel carbon dioxide gas.
4. Vacuole	D. are cells that form of long fibers to allow movement.

1. 2. 3. 4.

What happens if:

B: Sugar doesn't reach to mitochondria inside a cell.

.....

.....



Model (7)

Question One: A: Choose the correct answer:

- The membrane of an onion consists of similar units called
a. cells b. nuclei c. organs d. tissues
- is (are) the control center of the cell and is (are) responsible for cell division.
a. Mitochondria b. Nucleus c. Golgi apparatus d. Chloroplasts
- Which of the following is NOT a basic need of cells?
a. Food b. Oxygen c. Rocks d. Water
- The system which provides your body with oxygen gas and gets rid of carbon dioxide gas is system.
a. respiratory b. nervous c. endocrine d. circulatory

B: Write the scientific term:

- It is a gelatinous liquid that is found inside the cell.
(.....)

Question Two: A: True or False:

- Both the mitochondrion and plasma membrane are found in plant and animal cells. ()
- Different cells work together to form tissues. ()
- Contraction and relaxation of arm muscles allow the bones of arm to move. ()
- Developed microscopes have allowed scientists to make new discoveries. ()
- All cells in living organisms are identical. ()

B: Give a reason: Muscles cells need to be shaped like long fibers.

.....
.....

Question Three:

A: Complete the following sentences, using the given words between brackets:

(tissues – chlorophyll - structural - front - chloroplasts– contracts)

- When you lift your fist towards your shoulder, the muscle of your upper arm

2. In the photosynthesis process, absorb(s) sunlight where use(s) it to make the plant's food.

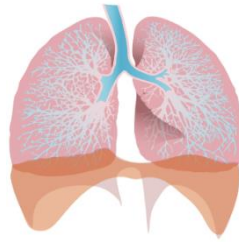
3. Heart is composed of a group of that do the same function.

4. The cells are , functional, biological units of living organisms.

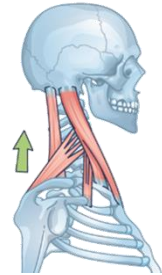
B) Mention the type of the following muscles:



①



②



③

Model (8)

Question One: **A: Put true or false:**

1. Musculoskeletal system consists of muscles and bones only. ()
2. A bird's unfertilized egg cell has length ranges between 0.005 to 0.1 mm. ()
3. The same stain can be used for different types of cells. ()
4. The kapok tree can make its own food due to the presence of chloroplasts in its cells. ()
5. There are two muscles that relax when your palm is facing down, and one muscle contracts. ()

B: Give a reason: Eyelid muscles are involuntary muscles while forearm muscles are voluntary.

.....
.....

Question Two: **A: Choose the correct answer:**

1. Studying the by cell biologists helps doctors treat cancer.
a. cell division b. cellular respiration
c. photosynthesis process d. digestion process

2. The plant cell is distinguished from the animal cell by the presence of and

- a. chloroplasts - nucleus b. nucleus – cell wall
- c. chloroplasts - cell wall d. nucleus – cytoplasm

3. The musculoskeletal system

- a. provides support for the body b. allows for movement.
- c. protects internal organs d. All the previous answers

4. Skeletal muscles work in pairs when

- a. moving your hands towards your shoulder.
- b. pumping blood to all the body parts.
- c. transmitting food to all the body parts.
- d. closing your eyelid to allow you blink.



B: Give a reason:

Importance of nervous system for the muscles of heart.

Question Three: A: Complete the following sentences, using the given words between brackets:

(pressure – big – temperature – high power – glands)

1. You can see cells of an examined sample in size by using the Objective lens of the microscope.
2. Endocrine system consists of which secrete hormones that control the body and blood

B: Classify the following muscles in the suitable

category: (Stomach muscles – Muscles surrounded eyeballs – eyelid muscles – forearm muscles – heart muscles - abdominal muscles – diaphragm – neck muscles)

Voluntary Muscles	Involuntary Muscles

Model (9)

Question One: A: Choose the correct answer from the following:

1. Photosynthesis process takes place in the , while cellular respiration process takes place in the

- a. nucleus – cytoplasm
b. mitochondria - nucleus
c. mitochondria - chloroplast
d. chloroplast – mitochondria

2. Which statement about the cells is false?

- a. All living organisms are composed of cells.
- b. All cells come from existing cells.
- c. Most cells are microscopic in size.
- d. All cells have a nucleus.



3. Which one of the following describes the contribution of Robert Hooke to the field of microscopy?

- a. He invented the earliest microscope. b. He observed human cells.
c. He described and named cells. d. He discovered the nucleus of a cell.

4. Which of the following structures are found in both plant cells and animal cells?

- a. cell wall. b. one large vacuole.
c. chloroplasts. d. mitochondria.

B: Write the scientific term:

The liquid material that is necessary for cell to maintain the balance on both sides of the cell membrane. (.....)

Question two: A: Put True or False:

1. All cells are formed of organelles, each of which performing a different function. ()
2. There must be a water imbalance at the two sides of the cell membrane, so that the cell won't burst. ()
3. Increasing the number of the living organism's cells occurs during reproduction process only. ()
4. We need a microscope to see smaller cells because they are visible to our unaided eyes. ()

B: What happens if:

The cells couldn't carry out cellular respiration.

.....

.....



Question three:

A) Choose from column (B) what suits it in column (A)

(A)	(B)
1. Nucleus	a. It is a gelatinous liquid which other organelles float.
2. Cell membrane	b. It is responsible for making photosynthesis process inside plant cell.
3. Chloroplast	c. It is the command of the cell and responsible for cell division and making protein.
4. Cytoplasm	d. controls the substances passing into or out of the cell.

1. 2. 3. 4.

B: Answer the following questions: The opposite diagram represents the



Model (10)

Question One: A: Choose the correct answer:

1. Which two organelles are involved in transportation?

- a. Nucleus and endoplasmic reticulum b. Mitochondria and nucleus
c. Chloroplast and Golgi apparatus d. Endoplasmic reticulum and Golgi apparatus

2. The nucleus was discovered during an observation of numerouscells.

- a. animal b. bacterial c. human d. plant

3. Which of the following is a list of components of a body system in order from the least complex to the most complex?

- a. Tissue, cell, organ, body system b. Cell, tissue, organ, body system
c. Body system, organ, cell, tissue d. Organ, tissue, cell, body system

4. All the following are from the cells found in the animal body, except the

.....

- a. blood cells b. xylem cells c. bone cells d. muscle cells

B: Give reasons for:

① The cell membrane has a selective permeability feature.

.....
.....

Question Two:

A: True or False:

1. The number of cells in plants and animals varies from a species to another. ()
2. Multicellular organisms consist of only one single cell, such as the plant. ()
3. The basic needs of a cell are the same as the basic needs of living organisms. ()
4. Eyepiece lens is a part of the microscope that changes the magnifying power ()

B: Write the scientific term:

1. They are structural, functional, biological units of all living organisms. (.....)

Question Three:

A: Complete the following sentences, using the given words between brackets:

(cellular respiration - Mitochondria - organelles – exoskeleton - Endoplasmic reticulum - nucleus – cell wall)

1. The gives the plants their definite shapes, while a/an gives some insects their shapes.
2. The small structures that form cells are called
3. collects and transports proteins produced by the through cells.
4. convert sugar into energy that is needed for cell activities through process.

B: Correct underlined words:

1. The cell will shrink when too much water keeps entering it.



كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

